Faculty of Education

Professional Development: A Study of Secondary Teachers’ Experiences and Perspectives.

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ABSTRACT

This research was undertaken to explore professional development in Western Australian secondary schools from the perspective of the classroom teacher. A study that bridged quantitative and qualitative methodology, it drew upon teachers’ perspectives and reports of professional development activities in which they had been involved over an eighteen-month period.

The major focuses of the study were in exploring teachers’ perceptions of their professional development activities across the following dimensions:

- choice
- rationale for choice
- levels of participation
- perceptions of effectiveness
- the influence of career stage
- equity in relation to access
- gender factors
- influence of school/educational culture

The conceptual framework in this study (refer to Figure 2.1) acknowledges the teacher as the central point of reference due to his/her importance in the classroom as the architect of the learning experiences for students (Fogarty, 1999). Four aspects were identified as influences on teachers. These were professional development; factors affecting teachers’ capacity to develop professionally; technological change in education; and the education system in which teachers work. Literature related to these four aspects was explored.

The findings of this study, based upon in-depth interviews with teachers, indicated that the respondents were expending significant amounts of time engaged in professional development. Results demonstrated that half of the reported hours (150 hours/person/year) involved personally selected professional development. Teachers’ rationale for choosing professional development was in order to become a more effective practitioner resulting in increased learning opportunities for their students. Effectiveness of professional development was predominantly related to the relevancy to teaching, level of interaction within the session, opportunities to obtain and discuss teaching materials, and the opportunities for reflection on their practices with colleagues.

Career stage did indeed appear to influence teachers’ choice of professional development, perceptions of effectiveness and quality, personal teaching philosophies, and perceptions of the school and educational culture. Less experienced teachers and
those in the final career stage were more focused on increasing their repertoire of teaching strategies. Experienced teachers in the middle career stages were largely concerned with increasing subject knowledge, and expertise required to assist them in their additional duties other than teaching.

Equity in accessing professional development was a distinct issue for rural teachers and information technology teachers in this study. Information technology teachers reported experiencing frustration with the expense involved, and difficulties in accessing targeted professional development that catered to their specific requirements. Teachers situated in rural areas expressed concern with the lack of choice available to them in the rural situation. This was largely due to extensive travel time to the metropolitan area to attend specific programs, expense involved in accessing professional development and the lack of support by administration in their schools related to professional development.

The teachers in this study displayed gender differences in relation to their perceptions and choices of professional development. Female teachers were generally more focused on professional development that directly related to their teaching whereas their male counterparts were overtly seeking professional development that would advance their career aspirations. Family commitments were more frequently cited by male respondents as the reason for non-attendance at out-of-hours professional development.

School culture was acknowledged by teachers in this study as having an impact on professional development. Teachers resoundingly indicated they desired more self-determination in decision-making related to professional development. They expressed the perspective that the employer was demonstrating a lack of trust in teachers’ professionalism and was not providing professional development to meet their teaching needs. It appeared that the professional development being provided was ad hoc and a more systematic approach was needed.

As a result of this research a model of systematic professional development has been proposed that encompasses the expressed needs of teachers in this study, the literature on effective professional development to improve student learning, and the quality assurance and accountability mechanisms required by the employer.
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CHAPTER 1
INTRODUCTION

Background

Schooling in Western Australia has been experiencing a period of rapid and multiple reforms. One of the areas that has undergone dramatic change is that of professional development of teachers in the Western Australian Government school system. This researcher’s interest in professional development has arisen from respondents’ comments recorded as part of a previous research study conducted by telephone interview with teachers across the state in both the private and public school system. The respondents in that previous study (Scott, 1997) frequently expressed feelings of concern, anxiety and frustration with the climate of industrial action with which they were working, while adjusting to their first year of teaching. These negative feelings felt by the new teachers were compounded by the further issues being faced in satisfying the requirements of a new (at that time) Education Department of Western Australia (EDWA) professional development policy. In addition to these specific apprehensions they also expressed concern with the teaching profession in general, including doubts related to the professionalism of teachers, the demands of society on the education system, the requirements of the teacher appraisal system and the difficulty in keeping up with all the changes.

The focus of this doctoral research program was to examine the choices of professional development made by teachers and the rationale underlying their choice; their perceptions of the professional development they had undertaken over an eighteen month period and the relevancy of the programs to their work. Possible differences in choices according to teachers’ gender were examined as were issues relating to access to professional development by teachers in rural areas. In addition to these aspects, it was important to investigate teachers’ reactions to multiple changes related to professional development requirements stipulated by EDWA over the past three years.
Literature Review

Professional development is an area where much research has been, and is being, conducted. From an extensive search of the literature a number of key aspects of professional development were isolated as relevant to this study. These aspects included research regarding effective professional development processes (Gall et al, 1985; Bandura, 1986; Joyce & Showers, 1995; Chickering & Gamson, 1991; Darling-Hammond, 1998), mechanisms or models of teacher change (Guskey, 1986; 1994; Guskey & Sparks, 1996; Fullan, Erskine-Cullen, & Watson, 1995), identifying who and what drives teacher change, and why it is necessary (Hall & Loucks, 1978; Fullan, & Hargreaves, 1991; Clark, 1992; Clarke & Hollingsworth, 1994; Darling-Hammond, 1994a; Darling-Hammond, & McLaughlin, 1995; Glatthorn & Jillall, 2000), school culture and the influence it has on teachers and their professional development activities (Fullan & Hargreaves, 1991; Hargreaves, 1992; 1994; Sparkes & Bloomer, 1993; Dinham, 1995), the teachers’ needs related to their subject specialisation and the stages in their career (Berliner, 1988; Huberman, 1992; Steffy et al, 2000), and identifying the stakeholders in professional development arrangements (Smyth, 1991; 1992; Stones, 1992; Joyce & Showers, 1995; Webber, 1995b; 1995c).

What is Professional Development?

Joyce and his associates (1976, p.6) define professional development in terms of inservice education as “formal and informal provisions for the improvement of educators as people, educated persons, and professionals, as well as in terms of the competence to carry out their assigned roles”. Gall, Renchler and associates (1985, p.6) defined professional development as “efforts to improve teachers’ capacity to function as effective professionals by having them learn new knowledge, attitudes, or skills”. As professional development is an extension of the initial learning for qualification that occurred for the staff member concerned, in this case the teacher, a brief review of the processes involved in learning is required.

Educational psychologists such as Jerome Bruner and David Ausubel are two leading researchers who have investigated the mechanisms involved in learning (Woolfolk,
1993; Gage & Berliner, 1992). Bruner believed that “meaningful learning” occurred when students grasped the structure of a field of study (the nature of fundamental ideas and how they related to one another) and “when they discover[ed] these relationships themselves” (Biehler & Snowman, 1993, pp.440-443). Similarly, Ausubel believed meaningful learning occurred when the information received was organised in such a way that it enabled easy assimilation into current knowledge schema in order for students to formulate a “meaningful learning set” (Biehler & Snowman, 1993, pp.440-443). Woolfolk (1993) suggested that successful learning occurred when new information or skills were influenced by previously learned information or skills.

During the 70s, Joyce and Showers found, while evaluating staff development programs, less than ten percent of the teachers would transfer new learning into regular classroom use even when those teachers had volunteered for the program. This low success rate was initially “attributed to ‘flaws’ in the motivation, effort, and attitudes of the teachers” (Showers & Joyce, 1996, p.13). These results led to further investigation into why staff development programs were relatively ineffective. They examined the teaching/learning processes or “training for transfer” in detail. Joyce and Showers followed teachers through inservice teaching/learning procedures and found that nearly all of them had the ability to refine existing skills and were able to readily learn new strategies. However, for these new approaches to teaching to be successfully incorporated into a teacher’s existing “repertoire” certain conditions were necessary.

**Effective Skills Development**

Joyce and Showers (Joyce & Weil, 1986, p.478) through their research in developing skills and strategies in teacher education, identified the following six steps as major components which have been found to be effective in a teaching/learning program:

1. Presentation of theory or description of the target skill or strategy;
2. Modelling or demonstration of skills or Models of Teaching;
3. Practice in simulated and classroom settings;
4. Structured and open-ended feedback (provision of information about performance);

5. Coaching for application (hands-on, in-classroom assistance with the transfer of skills and strategies to the classroom);

6. Generating a "learning how to learn" effect (the more learning takes place, the more the ability to learn increases)

When examining these six steps, the similarities to Bandura's (1986) Social Cognitive Theory became evident. Bandura's Social Cognitive Theory established that learning took place when the essential aspects of modelling, practice, feedback and coaching were incorporated into a training program (Pajares & Kranzler, 1995). Since these components were identified, Joyce and Showers have been concentrating on the fifth phase of training – coaching. In their earlier study they felt that follow-up on-site coaching may increase transfer significantly. In their trials they initially believed that the coach needed to have higher levels of expertise, hence Showers herself acted as the coach. Subsequent to this first study, and to avoid experimental effects, the inservice teachers were grouped into small self-support teams who coached each other (PCST – Peer Coaching Study Teams). These trials proved highly successful, establishing without a doubt that coaching did indeed make a significant difference. In a follow-up of the initial study, which was conducted six months after coaching ceased, including a nine-week summer vacation period, the long-term effects of coaching were confirmed (Baker & Showers, 1984). Seventy percent of the coached teachers had transferred their inservice teaching/learning preparation to their classroom practice compared with none of the uncoached teachers. Since then, others have adopted the peer coaching approach, either on a small scale or as a whole school initiative and have encountered similar positive effects (Kent, 1985; Servatius & Young, 1985; Rogers, 1987; Garmston, 1987; Moffett, St. John & Isken, 1987; Joyce, Murphy, Showers & Murphy, 1989; Raywid, 1993; Garmston, Linder & Whitaker, 1993).

**Processes of Teacher Change**

In the mid 1980s Thomas Guskey was investigating the process of teacher change. He reported Griffin's (1983, in Guskey, 1985, p.2) view that "staff professional development programs are designed to alter the professional practices, beliefs and
understanding of school persons toward an articulated end”, in other words they were an attempt to bring about change in teachers’ classroom practices, beliefs, attitudes and a change in the learning outcomes of students. He found that many inservice programs were ineffective. He reported Fullan’s observation that teachers engaged in professional development “because they want to become better teachers ... [and professional development is seen] as the most promising and most readily available routes to growth on the job”. Guskey continued with this thought by adding that it is not only seen as a way to “overcome boredom and alienation” but also to provide a “pathway to increased competence and greater professional satisfaction”. He found that the “vast majority of teachers” felt that “becoming a better teacher” meant “enhancing the learning outcomes of their students” (Guskey, 1986, p.6). Through examination of ineffective professional development programs and those that had resulted in significant changes in teachers’ behaviours and attitudes Guskey (1986, p.7) formulated a model of the process of teacher change outlined below:

Figure 1.1: Guskey’s model of the process of teacher change

He found that teachers’ beliefs and attitudes only changed after experiencing a change in their students’ learning outcomes resulting from implementation of the strategies or skills attempted from the professional development program. This finding was recently reiterated by Linda Darling-Hammond (1998), where she outlined “professional development strategies that succeed in improving teaching”. One of these strategies was “connected to and derived from teachers’ work with their students as well as to examinations of subject matter and teaching methods” (Darling-Hammond, 1998, p.11). How and what the teachers used to assess the change in student learning was quite varied. The learning outcomes not only included “cognitive and achievement indexes, but also a wide range of affective characteristics” such as “students’ attendance, their involvement in class sessions, their motivation for learning and their attitudes toward school, the class, and themselves” (Guskey, 1986,
p.7; Guskey & Sparks, 1996). This finding endorses Gall, Renchler, Haisley, Baker, and Perez (1985, p.11) who reported Prowat and Anderson's (1981) findings that elementary (primary) teachers considered “their most important task” was to be “attending to their students’ affective needs ... (for example, getting students to interact positively or feel good about themselves) as compared with cognitive growth”. This model was an alternative perspective from the models of change developed by some early change theorists such as Lewin (1935, in Guskey, 1986) who derived many of his ideas about affecting change from psychotherapeutic models. Lewin’s views were that the change needed to affect individual’s attitudes and beliefs before there would be any resultant change in the practices of the individual.

Guskey and his associates have continued their exploration of the processes of teacher change and school reform since the 1980s and have now proposed a model of the relationship between staff development and improvements in student learning (Guskey & Sparks, 1996; Guskey & Peterson, 1996). As discussed previously, student learning outcomes may vary considerably from “assessment results” to “schoolwide indicators such as enrolment in advanced classes, membership in honor societies and participation in school-related activities” (Guskey & Sparks, 1996, p.36). In this more recent model Guskey outlined the variables he perceives as having a major impact on student learning outcomes as the “quality of the staff development” that include the content, processes, and the context (the organisation, system, or culture) in which the professional development program and implementation takes place; the alteration of teachers’ knowledge and practices and the effect on student learning outcomes. In addition to these major influences he has also identified other variables that effect teachers’ knowledge and practices, such as, administrators’ knowledge and practices, policies and curriculum organisation (often formulated by the administrators), the school culture, and parent education and involvement. In formulating this model, Guskey and his associates seek to acknowledge the complexity of the relationships between staff development and student outcomes and also to demonstrate that they are not “random or chaotic”. “Recognizing factors influencing [the] relationship” can assist “evaluators” of professional development programs and school leaders to “not only document results but also offer explanations as to why those results occurred”

Introduction
and “clarify the relationships” in such a way that they are better able to “plan and assess their staff development efforts” (Guskey & Sparks, 1996, p.37).

**Stakeholders**

It may be supposed that students will automatically benefit from the effect that professional development programs have on the teachers’ attitudes and skills, either directly or indirectly. For example, “some educators believe that if student self-concept is improved (direct effect), there will be subsequent improvement in student academic achievement (side effect)” (Gall et al., 1985, p.11) or if a teacher increases their management skill (direct effect) it will result in more time engaged on-task (side effect). It is difficult sometimes to determine the definite effect of the teacher’s professional development on his/her students. Can a teacher legitimately be involved in professional development that is not directly related to increasing student achievement? Who should decide the professional development in which a teacher should be involved? Should the decision of what professional development to choose be the responsibility of the individual teacher, the school administration, the school district, EDWA, or some combination of all of these stakeholders? Who should set the priorities?

Joyce and Showers (1995) recognise each of these four groups as significant stakeholders in the decision-making process. The individual practitioner is the person at the chalk-face, as it were, who knows the problems they are dealing with in their own classrooms and through reflection can identify the areas of need for themselves and their immediate colleagues. Similarly, as a collection of individuals, the school site is the situation where the needs of a school can be assessed, to develop a plan for attacking the problem areas existing in their school. The school district, as a collection of schools, has the unique perspective of being able to overview the concerns affecting a particular locality. District personnel also represent a more political aspect and have the responsibility to objectively view the schools and teachers in order to “generate ways of improving education”. The rationale for district initiatives is that they have this wider perspective and are able to “marshal more resources” to implement the necessary changes (Joyce & Showers, 1995, pp.3-5). The governing
agencies, detailed in Joyce and Showers (1995) as including “local boards, state boards and state and federal government agencies”, have the responsibility for “communicating the will of the public to the schools”. They, again, have the advantage of perspective, both statewide and international. They have the ability to “compare education with other units in society” and are concerned with accountability to the “public and generating initiatives for … ‘quality management’, restructuring and management by objectives,” most of which are borrowed from practices in the private sector” (Joyce & Showers, 1995, p.5).

Joyce and Showers (1995, p.5) state that “initiatives from all four sources can have a very positive effect on the education of children” because there is “potential in all of them”, however, there are weaknesses in all of them which reduce their effectiveness and these need to be overcome by an appropriate professional development initiative. They outline that a “strong and responsive staff development system – essentially an investment in people – combined with the provision of time within the workday for study and collaborative planning is essential to school improvement efforts” and this will “support and legitimize individuals, schools, and district initiatives” (Joyce & Showers, 1995, pp.5-6).

**School Culture**

While acknowledging that teachers are an important aspect in the four groups who make decisions regarding school development, the school environment that the teachers are working within must also be a factor influencing their decisions. Although there are similarities between schools, all schools are not the same. Andy Hargreaves (1992, p.217) encountered distinct differences among school cultures. He developed a system of classifying school cultures according to certain characteristics such as ...

> beliefs, values, habits, and assumed ways of doing things among communities of teachers who have had to deal with similar demands and constraints over many years. Culture carries the community's historically generated and collectively shared solutions to its new and inexperienced membership.
The most pervasive culture, in his view, is that of “individualism” where teachers who teach alone, have little to do with other colleagues and become isolated. “They avoid discussing, thinking about or committing themselves to more fundamental changes which might affect the context of what they do or raise substantial questions about how and what they teach (referred to as conservatism by Lortie, 1975, in Hargreaves, 1992)”. Lortie further describes individualism whereby teachers “shy away from collaboration with colleagues and from the feared judgements and criticisms that may come with that”. Interestingly though, the staffrooms of these individualistic schools may be rewarding places with the sharing of “war stories”, jokes and anecdotes “often at the expense of the kids, or their parents, or the administration” providing a “compensating kind of solidarity” (Hargreaves, 1992, pp.220-221).

The second culture identified was that of “balkanization” – “a culture made up of separate and sometimes competing groups, jockeying for position and supremacy like loosely connected city states” (Hargreaves, 1992, p.223). These groups are usually the teachers’ immediate colleagues with whom they “work most closely, spend most time, socialise most often”, in school and out of hours. This type of culture may lead to “poor communication, indifference” and segregation of faculty groups. It may be a result of administrative staff failing to value their teachers, or valuing some over others leading to rivalry.

“Collaborative” culture was the third culture identified by Hargreaves. In this type of culture teachers are “more united than divided” and display “routine help, support, trust and openness”. These features are not organised, as such, but are informal aspects of the everyday workings of the school life. Leadership is essential in this culture, in particular through example. This would be displayed through “frequent praise; helpful personal notes placed in mailboxes; through principals or headteachers indulging their staff with little treats like cakes or flowers which show caring and thoughtfulness”; and “high visibility” (Hargreaves, 1992, p.226). He continued by stating that this culture is the “rarity” (Hargreaves, 1992, p.227).

Hargreaves (1994) documented a fourth culture as that of “contrived collegiality”. In this culture teachers’ collaborative working relationships are not spontaneous,
voluntary, development-orientated, fixed in time and space and predictable. He stated that this culture can be set up and imposed by administrative staff and can be mandated in the form of peer coaching, team teaching and collaborative planning arrangements. Although this appears to be a very negative culture he does state that these structures can lead to the development of true collaborative cultures. Interestingly, Darling Hammond (1998, p.11) identified “collaborative” strategies that involve ...

*a sharing of knowledge among educators ... [and are] sustained and intensive, supported by modeling, coaching, and problem solving around specific problems of practice, and connected to other aspects of school change ...*

as being some of the strategies that “succeed in improving teaching. Although Hargreaves (1992) outlined the characteristics of these cultures and Guskey (1996) and his associates identified school culture as a variable in the complex relationship between staff development, the implementation of professional development and student learning outcomes, it does not explain if there is a reverse relationship. While teachers work within the culture of the school does the years of experience alter their perspectives related to professional development? These researchers frequently discuss or define cultures, but it is considerably more difficult to identify how the culture is formed and how a shift in culture is facilitated.

**Career Phases/Stages**

While school culture may exert an influence on teachers, do their needs or choices alter in relation to where they are in their career? Anne Jasman (1992, pp.1-2) referred to Berliner’s (1988) “stages of development” in discussing the issue of teacher professionalism by stating that “initial teacher education can no longer provide teachers who can be considered competent throughout their professional lives solely on the basis of their initial training”. She discussed Berliner’s stages of development arguing that teachers’ professional development needs are obviously different at the various stages. Teachers who had just commenced their career were considered as “novices” characterised by following a set of rules and procedures acquired in initial training. They then progressed to being “advanced beginners” (at years two to three)
who had begun to integrate their experience and theory and on to being “competent teachers” (after three or four years teaching) who were able to make conscious decisions and exercise judgement regarding what is important. With five or more years experience they moved to being “proficient teachers” who had developed a degree of intuition in their teaching and then become “expert teachers” who had the ability to perform effortlessly and with fluidity, intuitively and reflectively. Jasman related this progression of competence in relation to the development of professionalism, the need for self-appraisal and how the needs of the teachers were different depending on their “stage of development”.

Michael Huberman (1992, p.122) has also examined a similar theme which he referred to as “models of career trajectories” or phases/stages in the teaching career. He outlined a heuristic of teacher development in relation to both the length of time teaching and their experiences. In his model, teachers enter their career and experience themes of “survival and discovery”, equating to years one to three. The survival theme is characterised by “reality shock” which was the gulf between professional ideals and the daily grind of classroom life. The discovery theme is the “initial enthusiasm of having one’s own students”, becoming a colleague, and exploring a new culture (Huberman, 1992, p.123). The next stage of “stabilization” (years four to six) is where a commitment is made to the profession and frequently other career options are ruled out. It is also characterised by an affiliation to an occupational community, freedom from direct supervision and greater instructional mastery and comfort. Between years seven through to eighteen comes the stage referred to as “experimentation/activism” where the “gradual consolidation of instructional repertoire” leads to experiments with student groupings, materials, and sequencing in order to increase the teacher’s impact in the classroom. Teachers at this stage “may be ready for new challenges” and “new stimulation” and may be concerned with becoming “stale” in their profession (Huberman, 1992, pp.124-125). Huberman noted that there may be some form of “stock-taking” or “radical reassessment” “somewhere between the 12th and 20th years of teaching”. This “self-assessment” does not necessarily follow the stabilization phase but is more likely to occur in men than in women. Women appeared better able to relate the importance of their career to other
commitments in their lives. These stages of experimentation/activism and stock-taking were followed by a phase of “serenity” (years nineteen through thirty) where the “gradual loss of energy and enthusiasm is compensated by a greater sense of confidence and self-acceptance” (Huberman, 1992, p.125). Conservatism (similar time frame to serenity phase and may follow serenity phase but not always) is a less positive stage where there is “increasing prudence, greater resistance to innovations, greater nostalgia for the past, and more concern with holding on to what one has than with getting what one wants”. The final stage is that of disengagement where there may be an increase of conservatism resulting in “disengagement from policies and practices of which one disapproves” and in sociologist terms may be a “response to pressures from the environment to cede one’s place to younger colleagues and fresher ideas”. The disengagement may be considered “serene” or “bitter” depending on the experiences that led to this final phase (Huberman, 1992, pp.126-127).

**Gender Factors**

In addition to these issues discussed, Heather-Jane Robertson (1992) argued there were underlying gender issues related to staff development that needed to be addressed if these programs were to be successful. She argued that “gender sensitivity require[d] the recognition and integration of what is known about the differences between males and females within the conceptualization, design and delivery of staff professional development programmes”. She stated that by striving for a gender-neutral stance, researchers were sustaining “androcentrism” which she asserted was a “paradigm” or a “cultural filter”. Androcentrism ...

require[d] us to see the world from the male point of view and assume and assert that this is not a selective or limited perception ...

and require[d] the valuing of that which is associated with the male including men, men’s work, men’s experiences and stereotypically masculine characteristics and values, more than that which is associated with the female ...

such as “multiple ways of knowing” or “intuitive” approaches (Robertson, 1992, p.43 & 50). She continued that “gender neutrality” is a denial of the large body of evidence which confirmed gender-linked differences or gender bias (Robertson, 1992, p.44).
Robertson was critical of the “current school reform efforts” which, if successful, would make teaching more “competitive, cerebral, efficient and focused on instrumentalism” and would closely resemble the values of a masculinistic paradigm thereby “stray[ing] further away from ‘the ethic of care’ identified by Carol Gilligan (1982, in Robertson, 1992, p.45) as associated with the feminine paradigm”. She observed teachers who were “reticent” to become involved in professional development programs. She felt that drawing conclusions regarding the teacher’s level of “activity”, “keenness” or “positivity” needed to be reviewed more carefully, that there may be factors involved other than personality variables and individual inclination. For example, lack of time due to the “unequal distribution of family and domestic responsibilities” which may contribute to stress (Robertson, 1992, p.47). The Calabrese and Anderson study (1986, in Robertson, 1992, p.47) was referenced to illustrate that …

women teachers experience more stress than male teachers, and this stress is the product of powerlessness, isolation and meaninglessness

... that male orientation of curriculum, administration and the school environment are contributing to a growing sense of disenfranchisement among women teachers.

Smyth (1992, p.269), while not specifically discussing the lot of female teachers, appeared to be critical of the “overwhelming principles” of “corporate managerialism, increased centralism and the instrumentalist and technicist approaches that accompany the pursuit of the twin gods efficiency and effectiveness”. Smyth feels that the promoting of “collaborative structures” is being done for “essentially managerial ends” (Smyth, 1991, p.2). Teachers within these structures may feel pressured to take part in “contrived” collegiality such as “peer coaching, mentor teaching and joint planning” to avoid being labelled as unprofessional thereby adding to their levels of stress (Smyth, 1991, pp.3-4). The 1988 MacLeod study (in Robertson, 1992, p.52) found that there are “14 percent fewer women administrators in Canadian schools than there were a decade ago”. That this was due not only to “intentional sex bias in promotions” but “also to a growing reluctance among women to assume a role increasingly associated with autocratic school leadership and ruthless,
product-orientated management”, characteristics Robertson identified as a masculine paradigm.

**Research Questions**

As professional development is acknowledged as being a vital component of a teacher’s ongoing growth and is required and promoted by Education Department of Western Australia (EDWA), it merits investigation into whether teachers are being provided with appropriate choices and sufficient funding in order to continue their professional growth. This study proposes to explore a number of issues that were raised by a previous research study (Scott, 1997) regarding the professional development of teachers in Western Australian high schools.

1. *What choices of professional development are being made by secondary teachers in Government high schools, and what is the rationale underlying these decisions?*

2. *Are decisions regarding professional development influenced by the length of time the teacher has been teaching (teacher’s career phase/stage)?*

3. *What are the choices of professional development programs available to teachers and, from an equity viewpoint, is there a difference between the choices available in the metropolitan area in comparison with rural areas?*

4. *Does a teacher’s gender influence his/her decisions regarding professional development?*

5. *Does the culture of a school influence a teacher’s choices of professional development?*
Research Design

It would have been ideal to be able to interview every teacher in Western Australia regarding their attitudes towards professional development and their motivation for participating in certain programs, however, this was impractical for an individual to carry out and also impossible due to funding constraints. “Cluster sampling” was decided as an appropriate method for determining a sample. “In cluster sampling the unit of sampling is not the individual but rather a naturally occurring group of individuals” (Borg & Gall, 1989, p.225), in this case, Government secondary school teachers. In this study it was “more feasible or convenient to select groups of individuals than ... to select individuals from a defined population” (Borg & Gall, 1989, p.225 & 226). Contact with school principals was made through the Secondary Principals’ Association to seek their endorsement and to facilitate entree to their schools (Oppenheim, 1992). A letter of introduction was forwarded to secondary schools inviting teachers to be involved in the study. The sample was to include 1) female and male teachers, 2) metropolitan and rural teachers, preferably 3) teachers who were at various stages in their career, and 4) teachers from across the main curriculum areas of Mathematics, Society and Environment, English, and Science and Technology (including Information Technology).

Telephone interview methodology, utilising a semi-structured interview schedule, was selected as the approach for gathering data as it was less expensive in comparison to face-to-face interviews and generally takes less time (eg, in travel) and organisation, an advantage in a widely distributed sample (Cohen & Manion, 1994). Interviews would also allow a more in-depth pursuit of key issues and exploration of teachers’ concerns, perceptions and attitudes than a postal questionnaire method. In addition, the relative anonymity of a telephone interview could be attractive to some respondents, especially if dealing with sensitive issues, in this case, their motivations and attitudes to professional development. Disadvantages would include whether or not respondents have access to the telephone or if any have hearing problems. The interviewer must also have an exceptional telephone manner and would have to work without prompt cards (Oppenheim, 1992). This researcher has previously conducted a number of telephone interview studies over a three-year period and as a result has
refined this technique (Baker & Scott, 1995; Scott, 1996; Baker, Scott & Showers, 1997; Scott, 1997). Quantitative data that was collected in this study was analysed utilising the SPSS statistical package (SPSS Inc., 1997) available for these purposes and a combination of MS Excel, MS Word and MS Access was utilised for the qualitative data analysis arising from the interviews.

Ethics

Participation in the study was voluntary and assurances were given that responses would remain confidential to the researcher. The researcher ensured anonymity through the use of codes such that the responses would not be traceable to the individual in any document or publications arising from the research. Teachers who were interviewed were assured that they could withdraw from the study at any time.

Conceptual Framework

The basis of this research was to investigate secondary teachers’ choices and perceptions of professional development. To do this, a range of literature relating to the learning process, professional development processes, technological developments, socio-political trends, and curriculum changes were examined. From this search effective professional development processes and practices were identified, with Bandura’s Social Cognitive Theory emerging as the preferred theoretical framework through which the complex nature of teacher learning could be embedded (Joyce & Showers, 1980; 1982; Bandura, 1986; Guskey, 1986; Neubert & Bratton, 1987; Joyce, Murphy, Showers, & Murphy, 1989; 1995; Darling-Hammond, 1996; Showers & Joyce, 1996). Utilising this socio-psychological perspective, the processes involved in teacher change, and the development and refinement of teaching skills were investigated. Literature that involved the evaluation of professional development programs was also examined in order to gain greater insight into the success and impact of teachers’ professional development programs on student learning.

In light of the Social Cognitive Theory it was clear that the process of learning was not simply associated with the observation and carrying out of a sequence of steps but
other factors were involved. These factors included teachers’ individual motivation to implement innovations such as student-centred, constructivist practices; a teachers’ career phases; time issues; levels of self-efficacy; belief systems; together with the culture of the school and educational system. Teachers’ perceptions of quality teaching, and reflective practices, both overt and covert, particularly as they related to teachers’ teaching and professional development, were also examined (Zeichner, 1990; 1991; 1993). As described by Zeichner and his associates four distinctive areas of reflective practice were identified as necessary for teachers to incorporate into their regular practice. These included reflection on 1) the subject matter, 2) a specific teaching strategy or model, 3) metacognitive processes, and 4) social reconstructionist aspects of teaching. The links between self-reflection, metacognition, cognition and knowledge were also examined (Marzano, 2000).

Another facet of the research was that teachers do not teach in a bubble isolated from the socio-political environment, rather they are employed within a particular educational system. This system involves the teacher’s immediate colleagues, his/her school community, the educational structure and the political forces that manoeuvre and influence the educational sphere. All these elements affect teachers in their day-to-day teaching and professional development activities and may have an influence on their implementation of curriculum and technological change. The changes involved in educational reform in Western Australia and Australia were examined and broadly included technological change, outcomes-based education, constructivist approaches, site-based management, middle schooling and the implementation of government policy affecting education (e.g., performance management). The following conceptual framework has been developed to provide a graphic representation of the key concepts framing this current investigation (refer Figure 1.2).

The Conceptual Framework (Figure 1.2) of this study places teachers as the central focus, being the processors of change within their classrooms as well as learners or participants within professional development.

Four main influences were identified as impacting on teachers. The first of these influences was professional development factors. These factors were a key focus in
the conceptual framework as teachers can be greatly affected positively or negatively by their professional development experiences. When effective, professional development can promote increased student achievement, teacher professionalism and strongly influence school culture. When professional development is implemented appropriately it can bring about “reculturing” of the workplace and increase student and teacher satisfaction (Hargreaves & Fink, 2000, p.30; Showers, 1995). It is also perceived as the predominant process to bring about change, both structural and pedagogical.

The second main influence on teachers was factors affecting teachers’ capacity to develop professionally. This component of the conceptual framework included aspects that tended to affect teachers personally and included the school culture or environment in which they work, the stage of their career, levels of self-efficacy and linked to that, the level and extent of self-reflection, time factors both within school and out-of-school hours, gender differences and funding issues related to professional development.

The third identified were technological factors that incorporated the response of education in Western Australia to the influences of technological change. The multifaceted nature of this change is represented in the conceptual framework in both the reconceptualizing of teaching utilising technology, and the infrastructure required for both teaching and administration. Technological change is impacting on teachers in that they are expected to be both subject specialists and technological specialists.

The fourth influence was education system factors. This conceptual framework displays education as a highly political environment. The two major policy foci emerging from educational governance are curriculum, and bureaucratic processes. As teachers are viewed as the ultimate implemental tools of policy they are greatly affected by these political machinations.
Figure 1.2: Conceptual Framework - Exploring teachers’ experiences and perspectives in relation to professional development
The review of the literature in this study has been divided into four chapters. These four chapters explore the key literature related to the four main influences identified in the conceptual framework in this study. The first literature chapter (Chp2) focuses on professional development of teachers. The process of teacher change and the literature on what is effective professional development is examined. Content and the process of professional development are explored with a brief discussion of constructivist pedagogical practices. Issues of evaluating professional development and the literature of transfer of skills into regular repertoire are outlined.

The second literature chapter (Chp3) encompasses a number of diverse factors that affect teachers' capacity to develop professionally. These included the career stage of the teacher, school culture, gender factors, time, and teacher's levels of reflection and self-efficacy. The third literature chapter (Chp4) examines technological change in education specifically focussed on the rate of change and the effects on curriculum and administration (infrastructure). The final literature chapter (Chp5) relates to the education system with the key focus on policy implementation. It examines reform processes and the impact on the Western Australian educational system. Encompassed are the two main policy areas that impact on teachers, that of curriculum, and structures and bureaucratic processes.

**Note:** For a detailed *Glossary of Terms* please refer to Appendix A. For an expansion of the abbreviations commonly utilised please refer to the bookmark supplied.
CHAPTER 2
LITERATURE REVIEW:
PROFESSIONAL DEVELOPMENT

...what teachers know and can do is the most important influence on what students can learn. We believe that the quality of teachers is a major factor in determining the quality of schools. Paying direct attention to ongoing teacher development is the key to maintaining quality in our profession.

Michael P. Wolfe (Steffy et al., 2000)

![Diagram of Professional Development Components](image.png)

Figure 2.1: Conceptual Framework - Professional development component

Professional development of teachers is a key focus of this study, while the Social Cognitive Theory has been selected as the fundamental socio-psychological principle underpinning how individuals learn in the professional development setting. The essential elements of effective professional development are explored to understand the problematic nature of facilitating transfer of pedagogical skill into regular classroom practice. As professional development revolves around teachers expanding their knowledge and expertise, the literature on the nature and process of teacher change and how this aspect links with components of effective training is examined. The components of effective professional development, transfer of complex strategies into teacher repertoire, and teacher change, have been well documented in the literature and this chapter presents an overview.
perspective by exploring the relationships between each of the components. Additionally, the influences of school and organisational culture on professional development is outlined. Evaluation, as part of any informative cycle of learning, is examined in the context of professional development. The importance of evaluation, which is frequently absent from programs or overlooked, is discussed.

While this chapter investigates literature on the structure of effective professional development and the issues related to facilitating teacher change, the paradigm shift from positivist teaching (e.g., teacher centred direct instruction mode) to constructivist approaches and methods has been summarised. Some of the major forms of pedagogical strategies are summarised providing an insight into the theoretical underpinnings and advantages of adopting these approaches. These strategies highlight the “science and art of teaching” and frequently become the subject or content of professional development courses (Arends, 2001, p.2). This chapter provides the basis for understanding the importance, the effectiveness of, and issues related to, professional development and establishes links to other concerns teachers have in the present educational environment.

**Professional Development Defined**

Joyce and his associates (1976, p.6 in Gall, Renschler, Haisley, Baker, & Perez, 1985) defined professional development as “formal and informal provisions for the improvement of educators as people, educated persons, and professionals, as well as in terms of the competence to carry out their assigned roles”. Gall and Renschler’s (1985, p.6) definition was more specific – “efforts to improve teachers’ capacity to function as effective professionals by having them learn new knowledge, attitudes, or skills”. Interestingly the conceptualisation of professional development has not altered significantly as demonstrated by the more recent definition outlined in Alberta Teachers’ Association (2001, p.2) policy documents describing professional development as “any planned activity that provides teachers with an opportunity for growth in knowledge, skills and attitudes leading to improved teaching practice and enhanced student learning”.

*Literature Review – Professional Development*
Inservice professional development generally involves considerable widely distributed, labour-intensive effort involving the “expenditure of substantial school system resources” (Gall et al., 1985, p.2). It is also referred to as “the set of activities, experiences and processes that prepares a teacher to successfully implement the curriculum” (Alberta Teachers' Association, 2001, p.2-3). Staff development is a variation along the same theme as it has a contextual aspect (Joyce & Showers, 1995). While the focus remains on the improvement of knowledge, skills or attitudes, these are specifically “job-related”. Defined by a professional association it is “school-focused professional development described as the collective set of experiences involving the individuals and the context in which they work” (Alberta Teachers' Association, 2001, p.3). In an interview, Thomas Guskey (Todnem & Warner, 1994, p.63) stated that staff development is “increasingly seen as a process, not an event, ... that the process is intentional ... and is a systematic effort to bring about ... positive change or improvement”. Connors (1991) refers to Eraut’s “paradigms of teacher professional development” as 1. the “defect” approach; 2. the growth approach; 3. the change approach; 4. the problem-solving approach (p.55). These four paradigms are purportedly aimed at differing outcomes.

Many definitions or descriptions of professional development tend to be based upon the notion that teachers were “deficient”, “needed fixing” or were falling short in their professional capacities and this needed to be rectified (Joyce & Calhoun in Brandt et al., 1994, p.4; Clarke & Hollingsworth, 1994; Goodlad, 1994). Garmston discussed professional development programs that sought to address lack in teaching skills, as viewing teachers as empty vessels “to be filled” (Garmston, 1991, p.64). An insight into a teacher’s perspective of this “deficit” framework underpinning some professional development courses was gained in this amusing aside by a teacher who was involved in an inservice course quoted in Clarke’s article ... “I don’t see the point of all these inservice sessions. I already know how to teach better than I possibly can” (Deforges & Cockburn, 1987 in Clarke & Hollingsworth, 1994).
The Process of Teacher Change

Earlier in the 1980s considerable interest was shown in how teachers changed as a result of professional development. Professional development programs are generally designed to bring about some form of change. Griffin stated that they are designed to "alter the professional practices, beliefs and understanding of school persons toward an articulated end" (Griffin, 1983 in Guskey, 1986). Clarke proposed that different teachers may have different goals and motivations when entering a particular inservice program. Teachers may then expect and experience different things within the same inservice program (Clarke & Hollingsworth, 1994, p.161). While individuals may get different benefits, skills or modify their beliefs it was generally believed that teachers did change as a result of professional development. However, when Guskey, Darling-Hammond, Joyce, Showers and others investigated professional development programs they found that many inservice programs were ineffective. Initially researchers felt that this may have been due to teachers' lack of motivation. Fullan observed that teachers undertake professional development "because they want to become better teachers ... (and professional development is seen) as the most promising and most readily available routes to growth on the job". Guskey added that educational programs are not only a way to "overcome boredom and alienation" but also to provide a "pathway to increased competence and greater professional satisfaction" (Fullan, 1982 in Guskey, 1986, p.6). Guskey found that the majority of teachers were concerned with "enhancing the learning outcomes of their students" and to do that they felt they needed to become a "better teacher" (Guskey, 1986, p.6).

From his research examining less than effective professional development programs with those that had resulted in significant changes in teachers' attitudes and behaviours, Guskey (1986) conceived a model (refer to Figure 2.2) that outlined the process of teacher change. He established that the most significant factor in influencing teacher change was experiencing positive changes in their students' learning outcomes as a result of the teacher's implementation of the skills or strategies attempted from the inservice program. When this positive effect on students learning was observed it frequently resulted in changes in teachers' attitudes and beliefs.

*Literature Review – Professional Development*
This model provided an alternative perspective from those developed from early change theorists, for example, Lewin (1935, in Guskey & Peterson, 1996). Lewin,

![Diagram](image)

**Figure 2.2: Guskey’s (1986) model of the process of teacher change**

based upon the psychotherapeutic literature, posited that attitudes and beliefs must first be affected before any resultant change in practices would occur.

Guskey’s finding was endorsed by Linda Darling-Hammond, who found that “professional development strategies that succeed in improving teaching” were those “connected to and derived from teachers’ work with their students as well as to examinations of subject matter and teaching methods” (Darling-Hammond, 1998, p.11).

Guskey found teachers used a range of variables to assess the change in student learning. Some of these included “cognitive and achievement indexes” and a wide “range of affective characteristics” such as “students” attendance, their involvement in class sessions, ... motivation for learning and ... attitudes toward school, the class, and themselves” (Guskey, 1986, p.7; 1994). The use of affective indicators in evaluating changes in student outcomes was also found by Gall, Renchler and associates (1985, p.11) who reported Prowat and Anderson’s findings that teachers prioritised “attending to their students’ affective needs ... (for example, getting students to interact positively or feel good about themselves) as compared to cognitive growth”.

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*Literature Review – Professional Development*
Professional Development - Student Learning
In early training programs (50s – 70s) it was assumed that staff who engaged in training programs would automatically transfer the new learning into workplace practice. Similarly, it was assumed that teacher professional development automatically positively affected student performance. The relationship between staff development and improvements in student learning was investigated by many researchers, with groundbreaking work on structuring effective training for transfer of new complex skills into regular classroom practices, conducted by Bruce Joyce, Beverley Showers and their associates in the 1970s through to the present. Since then research has continued on how to increase improvements in student learning.

Guskey and Sparks (1996, p.35) developed a model for “exploring the complicated and multidimensional relationship between staff development and improving student learning”. This model (refer to Figure 2.3) was designed to clarify the complexities, to stimulate and challenge those involved in staff development to continue this exploration and to add to the body of knowledge. It provides an inclusive filter with which to view the varied aspects involved in professional development in this study.

In this model the factors or components are situated within a school context. The arrows show the direction of the effects, although in some cases they may be recursive. The Quality of staff development is usually influenced by Content characteristics, Process variables and Context characteristics. Content, Process, and Context are also identified as key components in specifying the National Staff Development Council’s (NSDC, revised 2001) Standards for Professional Development.

Content Characteristics
This component includes the knowledge, skills and understandings that comprise the “what” of staff development. It may encompass deeper understandings in both academic disciplines and/or specific pedagogical processes. It may also include the combination of both. These deeper understandings emerge from research and the ever-increasing knowledge base. It also includes aspects relating to “the magnitude, scope, credibility, and practicality of the change required to implement this new
knowledge” (Guskey, 1994, p.35). The size and the speed of the change required also influence the effectiveness of the staff development. Guskey and Sparks reflected “asking teachers or administrators to change too many things too rapidly also may result in maintenance of the status quo ... (because they) find it necessary to adopt a coping strategy that seriously distorts the change” (p.35). In the NSDC Standards for Professional Development content standards for professional development were identified as:

- preparing educators to understand and appreciate all students, create safe, orderly and supportive learning environments, and hold high expectations for their academic achievement;
- deepening educators' content knowledge, provides them with research-based instructional strategies to assist students in meeting rigorous academic standards, and prepares them to use various types of classroom assessments appropriately;
- providing educators with knowledge and skills to involve families and other stakeholders appropriately.

(NSDC, revised 2001) Standards for Professional Development.

**Process Variables**

This refers to the “how” of staff development and includes the type, form, planning, organisation, performance and the follow-up. This aspect has been the subject of considerable research into what constitutes effective professional development. The process standards professional development specified by the NSDC are:

- data driven using disaggregated student data to determine adult learning priorities, monitor progress, and help sustain continuous improvement;
- evaluative, in that they use multiple sources of information to guide improvement and demonstrate its impact;
- research-based preparing educators to apply research to decision-making;
- goal orientated and utilise appropriate learning strategies;
- applied utilising knowledge about human learning and change;
- collaborative and provide educators with the required knowledge and skills to facilitate collaboration.
Context Characteristics
In Guskey & Sparks' (1996) model context is the “who”, “when”, “where”, and “why” of the program and includes the system, culture or organisation in which the staff development occurs. The context may relate to the pressure the system or district brings to bear on the school to implement change due to “high expectations for the learning of the students” (p.35). The NSDC context standards in professional development are outlined as:

- incorporating adult learning communities where the goals are aligned with those of the school and district;
- requiring skilful school and district leaders who guide continuous instructional improvement;
- requiring resources to support adult learning and collaboration.

Quality of Staff Development
The quality of the staff development is the fundamental, key element in the process even though, on its own, it does not affect student learning. It does have an impact through “its direct effect on teacher and administrator knowledge and practices” (p.36). For the quality of the staff development to be successful these three components must be adapted to the “unique characteristics” of the highly “diverse contexts” and capitalise on this variability. A drastic reduction in the effectiveness of the staff development will occur if any of these aspects are neglected.

Administrator Knowledge and Practices
Administrators are frequently not included in evaluations of staff development due to the fact that these administrators do not directly influence student learning in the same manner as teachers do. They, however, have two indirect effects, first, they interact with teachers through activities such as supervision, formative evaluation and coaching. Probably more importantly, principals can establish the culture or
climate of the school by setting high professional examples and ensuring the creation of a “true learning community” that supports experimentation and values efforts to improve (Fullan, 1991). Their second effect is through their influence over policies. By ensuring that these are clear, well established and maintained they can enable data to be collected on how the staff development is affecting student learning.

**Parent Knowledge and Practices**

Parents exert considerable power over students' learning, not only in the early years of formative education, but also in the secondary scene in relation to monitoring homework and assignments and involvement in school activities. The power of parental involvement was the subject of investigation over a decade for Epstein (1988 in Fullan, 1991). Similar to Guskey and Sparks' posits, Epstein found that “there is consistent evidence that parents’ encouragement, activities, interest at home and their participation at school affect their children’s achievement, even after the students’ ability and family socioeconomic status is taken into account” (p.228). Teachers can influence parent involvement through parent conferences, homework activities and student-led conferences. With site-based management encouraging parental involvement, parents are increasingly having an effect on policy that also increases their feelings of ownership of the school.

**Student Learning Outcomes**

These are broader than simply school grades and include academic, affective components of student performance and school indicators such as participation in school activities, enrolment in advanced classes etc. Academic aspects include the usual forms of evaluation such as grades, portfolios, and other assessment formats, while the affective aspects may include student’s study habits, attendance at school, attitude, homework and classwork completion etc.
Figure 2.3: The multidimensional relationships between staff development and improving student learning (Guskey and Sparks, 1996).

Literature Review – Professional Development
While the model demonstrates the complexity of the relationship between staff development and improving student learning it also shows that it is not random or chaotic. It can provide guidelines to track the success of staff development and illustrates the need to “view reform from a systems perspective”. In discussing the model Guskey and Sparks cautioned that the model may be an “oversimplification” as any model is and stops short of demonstrating the affect improved student learning or subsequent teachers’ changes have on further staff development.

As quality staff development or teacher professional development is the central focus for improving student learning a brief review of the foundation literature related to learning and teaching processes in teacher professional development is required to determine what the components of “effective staff development” entails.

**Transfer of Knowledge and Skills**

When an individual undertakes a course of study we too often assume a resultant change in knowledge and/or behaviour on the part of the learner will occur. This assimilation and resultant change in understanding and/or behaviours is referred to as “transfer” and is “the process that enables us to make previously learned responses in new situations” (Gage & Berliner, 1992, p.352). In other words, the new information has been received by the brain, processed and assimilated into previously existing schema and, depending on how similar a new task is to the previously learned one, the individual should be able to put a new behaviour into practice. Study of this process has been conducted by educational psychologists such as Jerome Bruner and David Ausubel (Gage & Berliner, 1992; Woolfolk, 1993). Bruner believed that “meaningful learning” occurred when students grasped the structure of a field of study (the nature of fundamental ideas and how they related to one another) and “when they discover(ed) these relationships themselves” (Biehler & Snowman, 1993, pp.440-443). Similarly, Ausubel stressed the need to organize information in such a way that it enabled easy assimilation into current knowledge schema in order for students to formulate a “meaningful learning set”. Concepts of “meaningful learning” through the individual’s active creation of knowledge structures is now referred to as “constructivism” (Biehler & Snowman, 1993, pp.440-443).
Woolfolk (1993, p.284), in addressing “Applications of cognitive learning theories” suggests that successful learning occurs when new information or skills are influenced by previously learned information or skills. This view interfaces well with the findings of Joyce and Showers (Joyce & Showers, 1980; 1995), and Baker and Scott (1995; Scott, 1997). These researchers found that high transfer rates, around ninety percent, were experienced when the “learning” was merely a “refinement of existing skills” (Joyce & Showers, 1980, p.381; 1995, pp.108-109). However, transfer rates dropped dramatically with new strategies which represented new learning or “additions to repertoire” (Baker & Scott, 1995, p.3). These new strategies required far more effort and particular conditions, such as follow-up assistance or support in the workplace (coaching) in order to be successfully transferred into regular classroom practices (Baker & Showers, 1984).

In recent years, behavioural psychologists felt that some theories of how learning takes place, such as Skinner’s Operant Learning, offered too limited a perspective (Glover & Ronning, 1987; Woolfolk, 1993). Covert cognitive processes such as expectations, beliefs and motivations were not accounted for in such theories. Lev Vygotsky, (1978, 1986, in Woolfolk, 1993; Fogarty, 1999) felt that social interaction and support played a large role in cognitive development. This view was contrary in many respects to Piaget’s perception of children as egocentric and solitary learners (Galloway & Edwards, 1992). Albert Bandura (1986) held similar views concerning unaccounted for covert cognitive processes. He felt that “while learning may have occurred, it may not be demonstrated until the situation is right” where personal factors such as motivation and thinking may interact with environmental and behavioural factors in the process of learning (Woolfolk, 1993, p.220). As a result of his research Bandura developed the Social Cognitive Theory, an expanded perspective, which emphasised that learning could take place through the observation of others (Bandura, 1986; Biehler & Snowman, 1993). In observational learning, the “model”, which the observer attempts to mimic, could be an ideal or actual person who is held in high regard by the learner (Woolfolk, 1993, p.220). He identified four key elements in observational learning:
1. Attention - the student’s attention must be focused on the subject or skill that is to be learnt.

2. Retention - remembering the behaviour through mental rehearsal or practice.

3. Production - practice, feedback and coaching in order to refine the performance of the behaviour. Practice promotes the development of self efficacy, the belief that we are capable of performing the behaviour.

4. Motivation and reinforcement - although the behaviour has been learned it may not be demonstrated without the required motivation. Reinforcement occurs when the new behaviour produces a reaction - either positive or negative. Positive reinforcement is required for the behaviour to be maintained and promoted.

(Woolfolk, 1993, pp.221-222).

The motivation and reinforcement stage is obviously crucial in the learning process where the learned behaviour is either continued or discontinued depending on the reaction that it elicits. This links with Guskey’s (1996) model of teacher change whereby teachers changed their beliefs subsequent to observing positive effects on student learning.

Subsequent to the development of his theory, Bandura identified a further key element which had up to that time been missing, that of self-belief. He postulated that these belief structures exerted a measure of control or influence over an individual’s actions and feelings similar to the adage of “the power of positive thinking”. He associated this with the “distinctly human” ability of self-referent or self-reflective thinking which enabled the individual to analyse and alter their cognitive processes and resultant behaviour. Therefore, behaviour is linked to three key aspects, that of, knowledge and skills, outcome expectations (which is a prediction of the likely consequence of a particular behaviour or action), and self-efficacy beliefs. He specified that the latter is a strong “predictor of behaviour” due to its mediational role, however, it is an extremely complex relationship (Pajares & Kranzler, 1995).
Learning Environments

The humanistic perspective, of establishing an environment and atmosphere that invites meaningful learning and assists not only cognitive development but also a positive attitude towards self and others emerged as an essential component of professional development of teachers, crucial to the effectiveness of workshops. Combs (1965, in Biehler & Snowman, 1993, p.476) viewed that the role of a teacher should be that of “facilitator, encourager, helper, assister, colleague, and friend of his students”. Likewise presenters of inservice workshops who encouraged and promoted peer-peer interaction and the developing of relationships within that environment promoted increased learning. Brown’s (1971, in Gage & Berliner, 1992) theory of confluent education, where there is a merging of affective and cognitive elements, and Roger’s (1969, in Gage & Berliner, 1992) principle that learning was easiest and most meaningful when it occurred within a non-threatening situation endorse the importance of establishing a humanistic environment for effective professional development. Rogers noted that this type of environment also resulted in the best retention of the cognitive elements. More recently Garmston in a series of articles, stressed the importance of the presenter’s skills. He reflected that a staff developer should be viewed as “a social architect whose goal is to build a culture of learning” … “to modify the structure of the workplace” (Garmston, 1991, p.64). He continued on this theme related to presentation skills, stressing the need to:

be a consultant – establish the needs and requirements of the school/district
(Garmston, 1995c);

be a good listener – listening skills communicate that the presenter “value[s]” the participant and promotes a humanistic environment ideal for learning (Garmston, 1994, p.61);

be able to read non-verbal communication – interpreting body language and structuring sessions to reduce stress and assisting participants to relax and enjoy the session (Garmston, 1995b);

understand how to structure collaborative groups – acknowledging that learning is not a passive experience and is enhanced by sociocentric thinking (Garmston, 1995a, p.70).

Additionally, the presenter must have credibility in the eyes of the audience otherwise participants disengage from the process, become irritated or worse -
insulted (Chase, 2000; Norman, 2001). Teachers, rather than outside consultants, are increasingly becoming involved in conducting professional development for colleagues which because of their ongoing classroom experience have increased credibility. Teacher development through the avenue of teachers becoming leaders within their school was explored in Katzenmeyer and Moller’s (1996) book *Awakening the Sleeping Giant: Leadership Development for Teachers*.

**Learning/Teaching Processes**

During the 1970s Joyce and Showers found, while evaluating staff development programs, that as few as ten percent of the teachers would transfer new learning into regular classroom use even when the teachers had volunteered for the program. This low success rate was initially attributed to “‘flaws’ in the motivation, effort, and attitudes of the teachers” (Showers & Joyce, 1996, p.13). Further investigation was sparked into why staff development programs were relatively ineffective. They examined the steps and components involved in teaching/learning processes or “training for transfer”. Through their continuing research they found that nearly all teachers had the ability to refine existing skills and were able to learn new strategies. However, for these new approaches to teaching to be successfully incorporated into their existing teaching “repertoire” certain conditions were necessary.

**Effective Pedagogical Skill Development**

Joyce and Showers (1986, p.478) through their research identified the following six aspects as major components that had been found to be effective in teaching/learning programs:

1. Presentation of theory or description of skill or strategy;
2. Modelling or demonstration of skills or Models of Teaching;
3. Practice in simulated and classroom settings;
4. Structured and open-ended feedback (provision of information about performance);
5. Coaching for application (hands-on, in-classroom assistance with the transfer of skills and strategies to the classroom);
6. Generating a “learning how to learn” effect (the more learning takes place, the more the ability to learn increases)

(Joyce & Weil, 1986, p.478)

When examining these six steps, similarities to Bandura’s (1986) Social Cognitive Theory become clear. Social Cognitive Theory’s essential aspects of modelling, practice, feedback and coaching have been incorporated into the first five steps of Joyce and Showers’ necessary components for effective teaching and learning processes. Subsequently, Joyce and Showers have been concentrating on the fifth phase of training – coaching. They are generally acknowledged as the first researchers to overtly incorporate coaching in the design of professional development programs (Ackland, 1991, p.22).

**Peer Coaching**

In their earlier study, Joyce and Showers proposed that follow-up on-site coaching might significantly increase the transfer of skills into regular teaching repertoire. In their trials they initially believed that the coach needed to have higher levels of expertise, hence Showers herself assumed the role of coach. Subsequent to this first study, the inservice teachers were grouped into small self-support teams who coached each other (PCST – Peer Coaching Study Teams). The coaching relationship involved planning together, sharing aspects of teaching, and reflectively pooling their experiences. Apart from sharing their planning of lessons and development of resources, teamed teachers would visit each other’s classrooms and observe lessons where the innovative teaching strategy was being implemented. The reciprocal visits and coaching relationships were unusual, in that the teacher who was performing the complex strategy was the coach, rather than the observer being the coach and providing “constructive feedback”. In effect, the observer was learning from his/her colleague, as well as through subsequent reflective discussions. These trials proved highly successful, in that the coaching team teachers practised new skills and strategies more frequently and applied them more appropriately than did those who were not involved in study teams. These findings suggested that coaching made significant difference to transfer of complex skills into regular classroom practice (Showers & Joyce, 1996). From the study of the history of professional development researchers questioned whether these positive effects would last or whether the
teachers would fall back into pre-existing patterns of teaching behaviour. In a follow-up of the initial study, conducted six months after coaching ceased including a nine-week summer vacation period, the long-term effects of coaching were confirmed (Baker & Showers, 1984). Seventy percent of the coached teachers had transferred their inservice learning into their classroom practice compared with none of the uncoached teachers.

Since then, other teachers and researchers have adopted the peer coaching approach, either on a small scale or as whole school initiatives and have encountered similar positive effects (Kent, 1985; Servatius & Young, 1985; Garmston, 1987; Moffett, St. John, & Isken, 1987; Rogers, 1987; Showers, Joyce, & Bennett, 1987; Joyce, Murphy, Showers, & Murphy, 1989; Garmston, Linder, & Whitaker, 1993; Raywid, 1993). Moffett and associates used this coaching approach in the support of beginning teachers with positive results. Those novice teachers reported being able to manage classes more effectively, appreciated the support of the “coach” or mentor and felt less isolated. They reported that the novices had increased their competence enabling the district to maintain a high level of professionalism. Using a whole school approach to school and teacher development (involving Peer Coaching Study Teams - PCST), Showers achieves approximately ninety percent transfer of learning/teaching processes and measures this impact in terms of significantly improved student learning outcomes (Joyce & Showers, 1995).

**Coaching principles**

When reviewing the literature the term “coaching” arises frequently and has numerous connotations and involves varied practices. Included in the term coaching is “team coaching”, “technical coaching”, “collegial coaching”, “challenge coaching” and “cognitive coaching” in addition to alternative meanings for “peer coaching” involving a traditional supervisory mode (Garmston, 1987; Moffett, St. John, & Isken, 1987; Ackland, 1991).

Similarities exist between “team coaching”, “technical coaching”, “collegial coaching”, “challenge coaching” and “cognitive coaching” and the approach taken by Joyce and Showers (1982; 1995). The other forms of coaching relate to
innovations in curriculum and instruction, whereas "collegial" and "cognitive coaching" focus on the improvement of existing practices. In most forms of coaching other than Joyce and Shower's peer-coaching, the primary vehicle for improving performance is through verbal feedback. Interestingly, although the PCST initially set up by Showers and Joyce incorporated peer evaluation in the implementation process, this "evaluative" aspect was found to be counter productive to the established collaborative processes. As a result it was discarded without affecting the transfer of complex strategies into the individual's regular teaching practices or on student achievement. Indeed, dropping the feedback process increased positive interaction between members of PCST as they had "found themselves slipping into 'supervisory, evaluative comments' despite all their intentions to avoid them" and which was not the original intention (Joyce & Showers, 1995, p.121). The "simplification of the organisation of peer coaching teams" also resulted in an increase in the amount of available time to teachers in the teams, to collaborate and formulate lessons (Showers & Joyce, 1996, p.15). Collaboration was instigated to "divide the labour of developing new lessons and unit sequences and use each other's products" thereby making it easier for members of the team by, in effect, reducing the preparation time (Showers & Joyce, 1996, p.15). This is especially important when implementing new strategies as teachers are generally under pressure for time and the collegial collaboration also prevents isolation (Norman, 2001). If the implementation process added to teachers' workload it would probably result in most teachers dismissing the new constructivist strategies as not feasible or giving "lip service" to the ideal without really instigating any changes to their classroom behaviours.

Joyce and Showers now prefer to work with entire faculties, whole schools and/or districts in establishing teams of teachers who desire to improve their teaching strategies in order to increase student achievement. Demonstrating a recent theme in the literature, Showers and Joyce have promoted the "reculturing" or "redesigning" rather than "restructuring" of the schools and have recommended that staff put time aside during their training sessions to make specific plans for change (Showers, 1995, p.16; Hargreaves & Fink, 2000; Hargreaves & Fullan, 1992). In line with Guskey, Sparks, Hargreaves and Fullan, and Darling-Hammond they also stress the
need for teams to monitor implementation systematically to track the effect on students and the school. They acknowledge that collaboration involves a cost in time; however, the increases in clarity of goals and focus, and information on effects of professional development on students make the effort well worth while (Showers & Joyce, 1996, p.16).

**Essential Elements of Transfer**

As previously established, transfer refers to the ability of an individual to learn something new, either a skill or knowledge; or when the practising of a particular skill facilitates the learning of a similar new skill (Joyce, Weil, & Showers, 1992). In mastering new and complex strategies, such as the Models of Teaching (Joyce, Weil, & Calhoun, 2000) or other complex student-centred strategies, a teacher needs to understand the theory underpinning the strategy/model, through reading the required textual materials, before putting the new strategy into practice. Understanding the theoretical basis of a strategy along with the expected beneficial outcomes for students, may influence the teachers’ beliefs regarding “good teaching” motivating them to continue refining skills to perform the models/strategy. Initial practice is usually conducted in a “psychologically safe” workshop environment which allows the teacher to develop the skills in line with Roger’s (1969, cited Gage & Berliner, 1992) humanistic views of optimal learning occurring within a non-threatening setting, where the occasional failure will not be a problem but rather a constructive learning experience. This environment is crucial considering Bandura’s (1986) fourth step of motivation and reinforcement. If the teacher experiences frustration, discouragement or even ridicule during this sensitive stage of learning it can be detrimental to the learning process. At the conclusion of the training process, the skills should have matured sufficiently for the teacher to commence implementation in the “real” classroom environment. Developing sufficient skill in the workshop setting should result in a level of self-efficacy related to the new strategy that should perpetuate the learning process.

Transfer of skills from a practical workshop setting to the classroom environment is not a straight forward process. Complex skills gained in a “simulated workplace”
may not necessarily be automatically transposed directly into a “real world situation”. These newly acquired strategies require modification to fit the particular needs of a class and curriculum. Successful transfer dictates the need for practice of the newly acquired skill. This in itself may be an obstacle. The new strategy is frequently uncomfortable especially if it requires the “unlearning” or discarding of particular existing repertoire that impedes the new strategy. A “paradigm shift” may also be experienced from how the teacher “traditionally viewed education in terms of processes, procedures, and inputs to a paradigm that defines, results, and outcomes” (Gallegos, 1994, p.34). This shift may not be quick or comfortable, in fact, Gallegos (1994, p.35) indicated that anxiety and “feelings of disorientation” from moving from one “reality” to another may be experienced. With continued practice the new strategy becomes more fluid and gradually feels as comfortable as the old one, especially as students become familiar with it and the teacher feels more “in control” (Joyce & Showers, 1982, pp.5-6).

**Degrees of Transfer: Horizontal - Vertical**

If the teacher uses the newly acquired skill in a “real” setting exactly as it was initially learned, with no modifications, the learning is referred to as “horizontal transfer” (Joyce & Weil, 1996, p.381). This is the case when a “model” lesson, developed in the workshop situation, is used with no changes in the classroom, or where the workplace environment does not require much adaptation of the strategy for it to work. However, in teaching this is rare, as each class is comprised of students with individual needs and abilities. Teachers need to develop a capacity to adapt or modify the models to suit the unique situation in which he/she is teaching. If the teacher is able to successfully modify the strategy, then a higher level of transfer - “vertical transfer” - is said to have been achieved. This will only occur if the teacher perseveres with the new skill even though encountering the occasional failure and through the initial “uncomfortable” stage (Joyce & Weil, 1996, pp.385-390). The “horizontal transfer” stage is when it is most likely that the teacher will give up the strategy as being too hard, or being too time-consuming, or express doubt as to whether the model can work with his/her particular students (Joyce et al., 1993).
Eventually, the teacher who persists in the implementing of the new strategy acquires "executive control" over it, that is, he/she is able to apply the strategy in the classroom displaying an understanding through analysis of the individual student's needs, the particular content material, the objectives to be achieved and the aspects of management required to perform the model appropriately and effectively (Joyce & Showers, 1995, p.133). Persistence also results in increased comfort levels, whereby the new strategy feels as comfortable as "old" methods of teaching, and multifaceted benefits to both teacher and students inherent in many models and student-centred approaches (refer to Advantages of a Constructivist Approach) (Joyce & Showers, 1982, pp.5-6).

As would be expected with any group of individuals, adopting new strategies and skills may be easy for some and difficult for others. The effort involved may depend on a range of influences such as what previous teaching methods had been utilised by the individual and how different these previous methods were to the strategies, what the individual's perceptions were regarding what constitutes "good teaching", how he/she had been taught, and his/her levels of self-efficacy and confidence.

**Evaluation**

Many researchers, district and school leaders and teachers have increasingly become concerned about evaluating the effectiveness of professional staff development programs (Joyce, Murphy, Showers, & Murphy, 1989; Guskey & Sparks, 1991; Hirsh & Ponder, 1991; Guskey, 1994; Guskey & Peterson, 1996). Professional development is no longer simply focused on ensuring that teachers increase their skills, rather, the focus is on ensuring that professional development has the effect of improving student learning. This is often difficult to capture and as a result researchers involved with professional development are indicating that evaluation processes should be built into the professional development program as a method to track the effectiveness of the initiative. This evaluation should also provide information about the affect (if any) on the school culture and whether this has impacted on students learning, either directly or indirectly (Darling-Hammond &
McLaughlin, 1995; Schwahn & Spady, 1998; Rolheiser, Ross & Hogaboam-Gray, 1999; Moffett, 2000).

Guskey and Sparks (1991) formulated a model (refer to Figure 2.4) that outlined the factors which contributed to changes in teachers’ instructional practices and behaviours. Their model involves how to evaluate the effect professional development has on student performance. The three main components are “quality of the staff development program”, “organisational climate and culture”, and “content of the staff development program”. As the arrows indicated, “quality of the program” is the main or central factor.

**Quality of Staff Development**

Quality is a multidimensional component encompassing all aspects of training, “from readiness activities, practice and coaching, through follow-up and support activities”. Program implementation is also a dimension of this category. Guskey and Sparks drew upon the work of Doyle and Ponder (1977, in Guskey & Sparks, 1991) in attempting to suggest exactly how program quality influences students’ learning. Doyle and Ponder referred to *Instrumentality*, *Congruence* and *Cost* as three criteria that affect teachers’ decisions about using the innovation:

![Figure 2.4: Factors in a model for staff development (Guskey & Sparks, 1991)](image)

*Instrumentality* – is how clearly and specifically the new practices are presented;

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*Literature Review – Professional Development*
Congruence – how well the content and practices align with teachers’ existing pedagogical beliefs and practices; and

Cost – involves teachers’ estimates of how much time and effort new practices require compared to the advantages and benefits they promise. These criteria were similar to Hall and Loucks work on the Concerns-Based Adoption Model (Hall & Loucks, 1979). Other researchers such as Joyce and Showers also stress the need for ongoing support in the form of peer coaching study teams within the culture of the school to maintain the impetus of the initial training (Joyce & Showers, 1995).

Program Content
This refers to the research basis for the content of the professional development or the proof that it works and is viable for use in that cultural setting. Many innovations indicate they have considerable research; however, Guskey and Sparks reported only two practices that have considerable research, cooperative learning and mastery learning. In addition, the strategies presented in the Models of Teaching (Joyce, Weil, & Calhoun, 2000) also have considerable research basis that document positive effects on students’ learning (Joyce & Showers, 1980; Baker & Showers, 1985; Bennett, 1987; Joyce, Murphy, Showers, & Murphy, 1989; Raywid, 1993; Baker & Scott, 1995; Scott, 1996; Baker, Scott, & Showers, 1997; Bennett, 1997; Scott, 1997). This research strongly suggests that program planners investigate research evidence supporting a particular innovation prior to investing time and money into a professional development program.

Context
Organisational climate and culture affect both initial and continued use of an innovation and therefore are important components to be examined (Hargreaves, 1992; Joyce et al., 1993; Schwahn & Spady, 1998; Moffett, 2000). There must be “strong support for teachers from both principals and superintendents”. Guskey and Sparks continue by stating that “contexts that nurture, support and trust, encourage shared decision making and responsibility, and provide ongoing assistance and opportunities for problem solving” appear to be the “optimal situation for successful
efforts” (Guskey & Sparks, 1991, p.73). Unfortunately the importance of culture is often dismissed or ignored and hence excluded from evaluations.

**Evaluation**

As opposed to previously utilised “happiness quotients” resulting from “inspirational presentations” with “charismatic presenters”, evaluation should be diverse and ongoing throughout the planning, execution of the program and in the subsequent period of implementation within the classroom. Information should be gathered related to academic, social and school-wide factors (Brandt et al., 1994, p.5). Data sources should include teachers, parents, students and administrators and should also include both quantitative and qualitative data (Rolheiser, Ross & Hogaboam-Gray, 1999). Perspectives should include participants’ outcomes, organisational outcomes and, of course, student outcomes. Evaluation should result in a review of the program in order to facilitate improvements to the first three components.

**New Directions**

Focussing on improvements in student learning as the key objective in professional development programs, in addition to the research on effective professional development processes, one-shot workshops are discouraged due to the inherent ineffectiveness (Garmston, 1991; Goldenberg & Gallimore, 1991; MacGilchrist, 1991; Boyd, 1993; Sparkes & Bloomer, 1993; Brandt et al., 1994; Darling-Hammond, 1998). Replacing these ineffective one-shot workshops are more focused goal-orientated programs designed to integrate professional development over time.

A trend in recent years is for teachers to become more proactive with regard to their professional growth through initiating collaborative groups or networking for specific teaching and learning purposes (Glatthorn, 1987; Goodson, 1992; Yopp, Guillaume, & Savage, 1993-94; Webber & Robertson, 1998; Burke, 2000; Chandler, 2000; Feiler, Heritage, & Gallimore, 2000; Goldberg & Pesko, 2000; Jenkins, 2000; Slattery & Clauss, 2000). The literature endorses this assertive approach as a form of empowerment of teachers (McElrath, 1988; Cook, 1990; Clark, 1992; Goodson, 1992; Robertson, 1993). Teachers are also becoming involved in professional
development of their colleagues and assuming a proactive leadership role within the school (Katzenmeyer & Moller, 1996; Feiler et al., 2000; Middleton, 2000; Norman, 2001). This has the advantages of increasing collegial processes within the school, assists teachers to feel more in control of their professional growth and provides them with opportunities to develop and demonstrate leadership qualities (Anderson, Rolheiser, & Gordon, 1998). An example of a proactive approach to supporting new teachers and developing teachers in schools is the Learning Consortium Initiative in Toronto, Canada which was established to explore change from a “partnership perspective” through systematic “teacher development and growth” (Fullan & Erskine-Cullen, 1995, p.280; Erskine-Cullen, 1995). The areas these researchers examined included the development of leadership qualities, norms for professional growth and the promotion of educationally sound change mechanisms in schools through a variety of approaches including train-the-trainer and school teams (Bennett & Green, 1995; Rolheiser & Hundey, 1995; Zywne, Stoll, Adam, Fullan, & Bennett, 1995). This was a broad approach encompassing preservice teachers through to the most experienced teachers, administrators and university faculty (Fullan, Erskine-Cullen, & Watson, 1995).

Site-based management has been proposed by some to provide teachers with increased “empowerment” and increased teacher control over their professional development, careers and daily decision-making. The reality is that they frequently don’t feel in control or empowered (Dinham, 1993a; Rinehart & Short, 1993; Shen, 1998). There has been a refocus on basing the teaching processes in professional development programs on principles of adult learning. These principles encompass ensuring an active learning environment and time for teacher collaboration, including teachers’ perspectives in the choice of content, discussion and reflection, and continued workplace support (Brandt et al., 1994, Chickering & Gamson, 1987; 1991; Birman, Desimone, Poter, & Garet, 2000; Magestro & Stanford-Blair, 2000).

Some researchers indicated that attending to the personal or self-development of teachers assisted their professional development. Attention to both aspects of teachers’ lives, that is work and home-life, are equally important and lead to more effective professionals. Wendy Hawthorne stated that “teachers teach in ways they
do, not just because of the skills they have or do not have, but also because of who they are as people.” This is an important consideration that is frequently overlooked (Hawthorne, 1994, p.45). Bill Boyd asserted that a double standard currently exists in the education of teachers. Teachers are being admonished to address their students’ affective and humanistic needs and yet this aspect is ignored for teachers in their own learning. He indicated that moving to “personal reinforcement through teacher-to-teacher collaboration” would support teachers’ affective growth (Boyd, 1993, p.3). While self-development has been highlighted as necessary by some, Hargreaves (1994) extends a note of caution stating that it can be “politically naïve”. He suggests teachers who only reflect on their personal images of teaching and learning while ignoring the broader political and social context that contributed to the development of those beliefs run the danger of turning personal practical knowledge into “particular and parochial knowledge”. He also states teacher self-development can be “misleading and narcissistically grandiose” in that ...

excessive beliefs in the transformative power of personal knowledge and personal change can lead to pious grandiosity (other teachers too can be as insightful and excellent as me!) ... or [alternatively] ... constantly frustrated by organizational constraints, to intolerable guilt (If only I worked harder, or was a better person, my students could learn more!) (Hargreaves, 1994, p.74).

Another aspect that is frequently ignored in structuring of professional development but is stressed in the teaching of children and adolescents is the need for a constructivist approach in facilitating learning. Teachers, similar to their students, should have the opportunity to learn and develop their pedagogical practice through constructivist structures. Mitchell and Sackney (2001) investigated the development of “learning communities” in providing meaningful professional development for teachers (p.2). Mitchell and Sackney (2000, p.3) highlighted Sergiovanni’s (2000, in Mitchell & Sackney, 2001) views that “developing a community of practice may be the single most important way to improve a school”, emphasising that “teachers construct their knowledge not only upon the exemplars that they discover in their own practice but also upon those that they cull from their colleagues’ practices” (p.3).
Constructivist approaches are equally effective in teaching within the classroom environment and the professional development situation. Considerable research has been done in developing teaching strategies that promote constructivism in the classroom. The range is considerable including various models that are designed to achieve different learning outcomes. Some of the key developments in constructivist strategies are outlined in the following section.

Constructivist Approaches

Educators and researchers who have tracked change in education have noted a paradigm shift from transmissive modes of teaching to a more constructivist one. Additionally, as outlined by Joyce and Showers (Joyce & Showers, 1995, p.9) “the implicit assumption [that] ... preservice teacher education provided all the knowledge and skill that one would need throughout their career” obviously cannot be the case due to the rate of change occurring within educational environments (Rolheiser & Hundey, 1995; Anderson, Rolheiser, & Gordon, 1998). A significant contributing factor promoting change has been a shift in desirable characteristics in future employees. For example a demand has evolved for employees who can think for themselves and work cooperatively in teams to solve problems. These abilities, coupled with the increase in the basic understandings of how individuals construct their own knowledge, result in the exploration of innovative teaching strategies in order to meet workplace requirements.

A Constructivist Paradigm

Teaching may be perceived as the ability to inform, convey knowledge or skills to someone else, to help another to understand, and/or to facilitate the discovery of knowledge. How this is done varies from teacher to teacher. The mode of teaching or the strategies utilised largely reveal a teacher’s beliefs regarding learning (Bandura, 1986). If the teacher’s belief system encompasses the view that the student constructs his/her own knowledge (constructivism) the role of the teacher will be that of “architects of the intellect” (Fogarty, 1999 p.76), guide, facilitator and resource as opposed to the font of knowledge. If the teacher holds a more transmissive or
didactic view of learning, control of the learning experience will tend to reside with the teacher. This is a more input driven model with students receiving information from the teacher and being expected to make sense of it as if in a linear process. Interaction is generally between the teacher and student with student-to-student interaction being discouraged.

John Dewey, Jean Piaget, Lev Vygotsky, Reuven Feurstein, Howard Gardner and Marion Diamond are a few of the researchers who have explored how learning is constructed. They promote the constructivist perspective of learning. Resulting the work of these researchers, teachers’ understanding of how learning occurs has gradually sifted from a positivist perspective – the delivery of information and subsequent passive absorption and assumed automatic neat ordering into pre-existing schema (Brandt & Perkins, 2000) to a more enlightened one of students’ constructing their own understandings. Constructivist teachers “design learning experiences for eager minds” that invite students to make meaning of their world by constructing knowledge (Fogarty, 1999, p.78). Fogarty indicates this design process is a complex one and identified three essential attributes:

- the creative genius of the teacher (the art and science of teaching),
- complex tools for instructional excellence (instructional methods), and
- expansive systems of interconnectivity to frame these learning experiences (curricular frameworks). (Fogarty, 1999, p.76)

She indicated that when all three components are complete, learning occurs with purpose in a natural progression.

With constructivist thinking, the focus is on the teacher providing motivating and meaningful learning experiences. Learning is demonstrated through tasks successfully performed, displaying a depth of planning, thought and execution.

Unfortunately, many teachers know the rhetoric of constructivism and are familiar with some of the strategies that support constructivist approaches to learning; in spite of this, all too often a gap between teachers’ understandings of best practice and actual practice. This is not necessarily due to deficiencies in teachers’ motivation, rather it is more likely due to a lack of systematic implementation of effective
professional development and/or support of learning of complex strategies in the classroom.

An array of complex tools is available for “today’s master teachers” (Fogarty, 1999, p.78). Noted below are outlines of the predominant forms or modes of instruction that are included in the broad category of constructivist approaches and which tend to incorporate the following “seven constructivist elements: learner and life-centred curriculum; enriched environments; interactive settings; differentiated instruction; inquiry experimentation and investigation; mediation and facilitation; and metacognitive reflection” (Fogarty, 1999, p.78).

**Inductive and Deductive Approaches to Processing Information**

Interest in understanding how humans learn and make sense of their world is not a new innovation. The ancient Greek philosophers studied the processes of the mind. More recently others have investigated the development of thoughts and thinking processes. Jean Piaget spent much of his life in the study of intelligence. He sought to understand how the human mind structured knowledge and formulated the stages of cognitive development (Galloway & Edwards, 1992; Jensen, 1987 in Woolfolk, 1993). Similarly, the American psychologist and educator, Jerome Bruner, pursued his interest in perception, learning and memory as well as cognition (Woolfolk, 1993). He established that young children could be taught any subject if the material was presented in an appropriate manner and at a suitable level whereby the child’s interest and curiosity was engaged. In his “spiral curriculum”, children progressed through their levels of schooling, wherein content could be presented in increased complexity and completeness (Biehler & Snowman, 1993, p.426). Building on Bruner and his associates’ work on concept attainment, Joyce and Weil (1996) developed the Concept Attainment Model. This model revolves around the learner examining contrasting positive and negative exemplars in order to distinguish attributes associated with a concept.

Hilda Taba was a curriculum theorist who was involved in overtly teaching students particular strategies to help them to solve problems. Her work formed the basis of an entire social studies curriculum in the Contra Costa School District (Taba, 1966, in
Joyce & Weil, 1996) and utilised many of the ideas fundamental in Bruner’s Concept Attainment Model. The essential aspects of her curricular focused on developing inductive mental processes by categorising data, exploring relationships between categories and developing meaning from the information. Taba’s model, the Concept Formation or Inductive Thinking Model, is based upon the fundamental premise that thinking skills can be systematically taught using a sequential procession with one thinking skill building on the previous one.

For these methods to be adopted by teachers with resultant positive effects on student learning, professional development must incorporate the components of effective teaching and learning with support in the real classroom situation in order for transfer to occur into regular teaching repertoire as these methods are complex and frequently represent “new learning” for teachers (Joyce & Showers, 1995; Showers & Joyce, 1996, p.13).

**Problem-based Inquiry**

In the 1960s, Richard Suchman developed a teaching strategy he labelled Inquiry Training, whereby he taught his students a process for investigating and explaining phenomena (Joyce, Weil, & Showers, 1992). He studied the methods used by leading scientific researchers and identified the crucial aspects of their inquiry process. He incorporated these key elements into his model in order to specifically teach how to conduct a systematic and logical inquiry. His model also endeavoured to develop the students’ skills and language used in inquiry. Suchman believed that the key to improving thinking skills was to becoming conscious of our thinking processes enabling analysis to occur, a similar thought to Bandura’s self referent or self-reflective processes (Pajares & Kranzler, 1995). Suchman also felt it was important to convey to students the attitude that “all knowledge is tentative” thereby allowing them the opportunity to mentally entertain more than one possible explanation which may be replaced by another theory as further information or evidence comes to light (Joyce & Weil, 1996, p.194). This developed increased mental flexibility to adjust to the ever-changing nature of knowledge. He believed that students would be motivated to inquire if their curiosity was aroused. They would become aware and be
able to analyse their own thinking strategies and be able to build on their strategies by accommodating new ones (Joyce et al., 1992).

Inquiry models have now progressed into Problem-based Instruction. Problem-based instruction is also referred to as project-based teaching, authentic learning and anchored instruction. Unlike direct instruction methods these rely on the teacher posing interesting and intriguing problems, to lead the inquiry process through careful questioning and to facilitate dialogue and investigation. This form of learning relies heavily on a humanistic classroom environment which promotes high levels of interaction both with data and in exchange of ideas. It relies on the provision of authentic and meaningful problem situations that can serve as springboards for inquiry and investigations. It also fits well with the more complex cooperative models such as Group Investigations originally designed by Herbert Thelen (Arends, 1998; 2001).

**Strategies for Learning Creativity**

Bruner, Goodnow, Austin, Taba and Suchman (in Joyce, Weil, & Showers, 1992) were all interested in the information processing aspects of thinking and developed models based upon the investigation of information or manipulation of data through inductive or deductive methods. During the same time period other researchers were interested in the social aspects of human growth and interaction. One of the more unusual models of teaching, Synectics, was developed by William J.J. Gordon (Joyce & Weil, 1986, pp.8-9, 161-169), initially in the industrial arena. It was used to build upon the “synergy” generated when people work cooperatively in groups to problem solve (Joyce & Weil, 1996, p.67). One of the difficulties encountered by these groups was that while working on a particular problem they became so engrossed they were unable to discern an appropriate resolution due to “mind set”. Gordon found that establishing distance from the initial problem through the use of analogy overcame this phenomenon and increased the creative drive. This type of “taught” creativity was subsequently adapted for use in schools, particularly schools of design or art. Synectics models not only enabled the development of creativity but also promoted cooperative and positive social interaction, study skills and collaborative behaviour (Joyce & Weil, 1996, pp.236-240).
Cooperative Learning Approaches

The positive aspects of cooperative and collaborative learning have been investigated for most of this century but have gained considerable support in recent years. John Dewey’s (1916, in Arends, 1998; 2001) work promoted the concept that the schoolroom should be a microcosm of the democratic society within which it existed. Following Dewey’s work Herbert Thelen developed precise procedures and strategies for helping students work in groups. Thelen, from his review of Dewey’s work held similar views that the teacher has a responsibility to actively encourage students to constructively investigate and inquire into relevant social issues and interpersonal problems. By doing this, a better understanding of the true nature of the democratic process and system within which they were living could be gained. Thelen went further by developing particular strategies for group investigations (Arends, 1998; 2001). Byron Massialas and Benjamin Cox (Joyce, Weil, & Calhoun, 2000) were also concerned with the improvement of society. Like Thelen they believed that schools should take a proactive role in teaching the citizens of tomorrow to be reflective regarding the relevant societal issues and provide students with the skills to be able to interact cooperatively with one another to creatively reconstruct society. Their strategy, the Social Inquiry Model, differed by maintaining an inquiry format similar to the other inquiry approaches utilising an inductive process.

Working more recently with cooperative learning strategies such as Thelen’s Group Investigations has been Shlomo Sharan in Israel (Sharan, 1980; Slavin, Sharan, Hertz-Lazarowitz, Webb, & Schmuck, 1985; Arends, 1998; 2001). Sharan was deeply interested in developing strategies that would create learning environments that fostered tolerance and racial harmony in addition to academic goals. His interest in cooperative strategies led him to devise small group teaching and peer tutoring methods. He also investigated other models developed by other researchers such as Aronson’s Jigsaw approach, DeVries Teams–Games–and–Tournaments, Slavin’s Student–Teams and Academic Divisions and Group Investigations Model derived from Dewey’s and Thelen’s work (Dewey, 1900; 1902; Thelen, 1960, in Sharan,
Cooperative approaches have been adopted, explored and expanded upon by other researchers such as Johnson, Johnson and associates (Johnson & Johnson, 1991; Johnson, Johnson, & Holubec, 1994; Johnson, Johnson, & Smith, 1998), Aronson (1997), Kagan (1994), Rolheiser and associates (Rolheiser & Hundey, 1995; Anderson, Rolheiser, & Gordon, 1998; Rolheiser, Ross, & Hogaboam-Gray, 1999), and Bennett and associates (Bennett, Rolheiser-Bennett, & Stevahn, 1991; Bennett & Smilanich, 1994; Bennett, 1997). Bennett and associates explored, refined and integrated a wide range of uses for these various cooperative learning strategies and tactics (e.g., think-pair-share (originally developed by Frank Lyman and associates at the University of Maryland in 1985 and refined by Aronson, 1997). These simple cooperative learning strategies, for example, numbered heads (Kagan, 1994), placemat, and jigsaw (Aronson, 1997) are appropriate for initiating student-centred learning at primary, secondary and tertiary levels. Bennett investigated the use of a range of cooperative learning and inductive strategies in facilitating systematic approaches to management and discipline within schools (Bennett & Smilanich, 1994).

Cooperative learning approaches are also being utilised successfully in the tertiary setting and in supporting preservice teachers’ development of positive self-efficacy from their peer-supported experiences (Bennett & Rolheiser, 2001; Bodner, Metz, & Tobin, 1997; Rolheiser, Ross, & Hogaboam-Gray, 1999). Bennett and Rolheiser (2001) advocate that integrating a range of models of teaching with cooperative learning as a central and essential model, makes for powerful teaching and learning. The practice of integrating two models within one or more lessons was also found in newly graduated teachers in Western Australia and was reported as a highly effective strategy to increase the time engaged in student-centred practices (Scott, 1997).

Cooperative models are designed to increase positive social and academic interaction through a supportive and comfortable learning environment. Emotional development is encouraged in cooperative strategies that create “relaxed, tension-free atmosphere,
in which a feeling of mutual trust prevails” and which also supports learning (Okebukola, 1986, in Bodner et al., 1997, p.26-27). Cooperative learning environments also tend to improve gender interactions (Waring, Johnson, Maruyama, & Johnson, 1985, in Bodner et al., 1997) and interactions between ethnic and racial groups (Sharan, 1980; Johnson, Johnson, Roy, & Zaidman, 1985; Johnson & Johnson, 1979 in Bodner et al., 1997). It also supports communication skills and promotes interaction and development of vocabulary.

**Gardner’s Multidimensional Conceptualisation of Intelligence**

Considerable research has occurred into the processes in thinking. Tangentially, another body of research has evolved into intelligence and exploring the parameters of intelligence. Influenced by working with notable researchers such as psychoanalyst Erik Erikson, sociologist David Reisman, and cognitive psychologist Jerome Bruner, Howard Gardner became interested in “investigating human nature, particularly how human beings think” (Scherer, 1999, p.16). He was dissatisfied with the traditional mathematical/logical components of standard definitions of intelligence that were traditionally measured and recognised in Intelligence Quotient tests. From his research, Gardner developed a revised theory related to the notion of what constituted intelligence and human potential.

Gardner redefined intelligence as “the capacity to solve problems or to fashion products that are valued in one or more cultural settings” (Gardner, 1983).

*Arguing that ‘reason, intelligence, logic, knowledge are not synonymous’, Gardner proposed a new perspective on intelligence that is rapidly being recognised as explaining students’ varied talents and hence is being incorporated in school curricula. In Gardner’s theory intelligence is expanded to also include such aspects as music, spatial relations, and interpersonal knowledge in addition to mathematical and linguistic ability (Brualdi, 1996).*

Gardner identified eight multiple intelligences as outlined below:

- **Logical-Mathematical Intelligence** - ability to detect patterns, reason deductively and think logically;
- **Linguistic Intelligence** - having a mastery of language. Also uses language as a means to remember information and includes the ability to effectively manipulate language to express oneself rhetorically or poetically;

- **Spatial Intelligence** - ability to create and manipulate mental images in order to solve problems. Not limited to visual domains as Gardner notes that spatial intelligence is also formed in blind children;

- **Musical Intelligence** - encompasses the capability to compose and recognize musical pitches, tones, and rhythms;

- **Bodily-Kinaesthetic Intelligence** - ability to use one’s mental abilities to coordinate bodily movements. Challenges the popular belief that mental and physical activities are unrelated;

- **The Personal Intelligences** includes **interpersonal intelligence** -- the ability to understand and discern the feelings and intentions of others - and **intrapersonal intelligence** - the ability to understand one’s own feelings and motivations. These are considered separate from each other but are frequently linked together (Brualdi, 1996).

Expanding his initial work, Gardner has recently added **Naturalistic Intelligence** -- which relates to being in tune with nature and the natural world. Additionally, a ninth, **Existentialist Intelligence** - the intelligence of understanding the fundamental questions of existence”, has been proposed. “Gardner’s research has not yet uncovered a way of verifying the existential intelligence through psychometric findings” (Orangeburg-Calhoun Technical College, 1999).

The multiple intelligence theory is striking a chord with many educators, for example, Jane Healy stated her reactions to the theory “I felt as if I had stumbled into a room in my own home that I had never noticed before … feeling that same shock of recognition toward an idea that squares with their own teaching and learning experiences” (in Scherer, 1999, p.12). Since his initial work, Gardner’s theory has traversed from the theoretical into the practical with resources and materials designed to provide teachers with advice, activities and assessments to support, explore and cultivate the multiple intelligences of students within their classes.
Advantages of a Constructivist Approach

Teachers in Western Australia (and other countries) are being expected to overcome poor literacy and numeracy in school leavers, incorporate outcomes-based education philosophies and constructivist teaching practices, incorporate learning technologies and identify and care for students at educational risk. As a result of this socio-political climate educators must examine the advantages of pursuing a constructivist approach. Some of the advantages of a teacher utilising a repertoire of teaching strategies (including the previous strategies) are that they:

- are designed to lead students through a logical, sequential set of steps in the attainment of knowledge (Arends, 1998; 2000);
- promote higher order questions which increase analysis and synthesis thinking (Bloom's Taxonomy in Bichler & Snowman, 1993; Brandt, 2000);
- promote positive social values namely tolerance of the views of others; they also encourage appropriate student-to-student interaction (Sharan, 1980);
- allow students to apperceive through experience that attainment of a concept may occur through different pathways, hence there is no “one right way” to learn; each individual’s thought processes may be considered as valid as those of the next student (Joyce, Weil, & Calhoun, 2000);
- promote the “flowing of dendrites” thereby increasing the “neural pathways of insight” through active, stimulation-rich learning environments (Fogarty, 1999, p.78; Brandt & Perkins, 2000);
- increase self-esteem, and self-efficacy in quiet, reserved students and those who have experienced repeated failure by providing equal opportunities to “get it right” through building on personal life experiences, or by working cooperatively to achieve a common goal (Bennett et al., 1991; Bennett & Smilanich, 1994; Bodner, Metz, & Tobin, 1997).

As students leave the school situation and move into further education, the workplace or a “new” home environment, the need to collect information, analyse, draw conclusions and to continually learn, remains paramount. History has demonstrated that humanity has a thirst for knowledge, and actively encouraging students to develop the skills enabling them to continue learning throughout life is a worthy
educational task. A less obvious outcome of using a range of teaching models and approaches is the emotional and social growth of students. Learning and developing crucial social skills such as equal voice; communication skills such as active listening; and critical thinking such as suspending judgement will allow students to live and work more collaboratively; to increase the chance that they will be successful. In a competitive workplace situation, these qualities are highly advantageous.

Effective Professional Development

When examining the extensive range of literature on ongoing teacher education a number of distinct themes have emerged that relate to the effectiveness of professional development programs, for example:

- the definition of professional development to enable effectiveness to be explored (Joyce & Showers, 1980; Gall, Renchler, Haisley, Baker, & Perez, 1985; Alberta Teachers' Association, 2001);
- the theoretical frameworks underpinning learning and the components required for effective learning and teaching (Bandura, 1986; Bennett, 1987; Ackland, 1991; Joyce & Showers, 1995; Showers & Joyce, 1996);
- the levels of transfer of complex instructional strategies and models into regular practice and the conditions required for transfer to occur (Showers, 1982; Baker & Showers, 1984; 1984; Baker & Showers, 1985; Servatius & Young, 1985; 1985; Garmston, 1987; Joyce & Showers, 1995; Showers & Joyce, 1996; Scott, 1997);
- the nature of teacher change and the conditions that facilitate development (Guskey, 1986; Hargreaves, 1994; Lieberman, 1995; Darling-Hammond, 1996; 1996; Birman et al., 2000; Magestro & Stanford-Blair, 2000);
- quality issues – related to content and presenters of professional development (Goldenberg & Gallimore, 1991; Guskey & Sparks, 1991; Guskey, 1994);
- the impact of context within which professional development occurs (Guskey & Sparks, 1991; West, 1991; Ingvarson & Loughran, 1992; Joyce et al., 1993; 1994; Middleton, 2000); and

Chapter Summary

The National Partnership for Excellence and Accountability in Teaching (NPEAT) identified a set of nine research-based principles for improving professional development that serve as an excellent summary of the major themes emerging from the literature in this chapter. These principles reflect the form rather than the content of professional development. They posit professional development programs that incorporate the characteristics of the nine principles are “more likely to be effective than those that do not.”

The nine principles developed by The National Partnership for Excellence and Accountability in Teaching (NPEAT, 2001, p.1) for improving professional development areas are as follows:

1. the content of professional development must relate directly to “what students are expected to learn and the instructional strategies that research and experience have shown are effective”.

2. “Professional development should be based on analysis of the differences between (a) actual student performance and (b) goals and standards for student learning”.

3. Professional development should involve teachers in genuine consultation, thus ensuring professional development remains relevant by building in self-determination and ownership by teachers.

4. It should be “primarily school-based and built into the day-to-day work of teaching” to ensure relevancy for teachers although, it does need to be planned for and evaluated.

5. “Collaborative problem solving” should be a feature of professional development enabling school-change.
6. "Professional development should be continuous and on-going, involving follow-up and support for further learning - including support from sources external to the school that can provide necessary resources and new perspectives”.

7. Evaluation of professional development is essential and provides valuable information regarding further refinements and future directions. It should incorporate multiple sources of information across a range of parameters.

8. An “understanding of the theory underlying the knowledge and skills being learned” must be included as teacher beliefs filter knowledge, guide behaviour and enable modification of practices.

9. Change must be systemic, contextualised and focused on improving student learning. Changing teachers’ capabilities without influencing the context is frequently counterproductive. Without a holistic, comprehensive or systematic perspective professional development is likely to be ineffective (Alberta Teachers' Association, 2001, p.1).

This literature chapter established that a considerable amount of research has been conducted on teachers’ continuing education and the structures required to effectively support that development. The previous paragraph outlined the main findings that the processes as well as the content of professional development programs are crucial to the success of the initiative, and the ultimate goal of positively affecting student learning. While professional development structures and content are key factors other factors affect teachers’ capacity to develop professionally. These factors include the teacher’s career stage, the school culture within which the teacher works, time factors, gender-related issues, a teacher’s level of self-efficacy, and self-reflection. These diverse factors are explored in the following chapter.
CHAPTER 3
LITERATURE REVIEW:
FACTORS AFFECTING TEACHERS’ CAPACITY TO DEVELOP PROFESSIONALLY

The kinds and content of professional development opportunities can be informed by ongoing monitoring of the concerns of teachers. ... [T]eachers need to have their self-concerns addressed before they are ready to attend hands-on workshops ... new approaches to teaching require practice ... help over time is necessary to work the kinks out ... with all the demands on teachers, it is often the case that once their practice becomes routine, they never have the time and space to focus on whether and in what ways students are learning. ... Learning experiences evolve over time, take place in different settings, rely on varying degrees of external expertise, and change with participant needs.


Figure 3.1: Conceptual Framework – Factors affecting teachers’ capacity to develop professionally component
The information in the previous chapter discussed effective professional development, transfer and the development of teaching repertoire, aspects of teacher change, and student-centred strategies and constructivism. One may conclude that acquiring an understanding these aspects and learning theory is all that is required to establish successful professional development. Such a conclusion presents only a simplistic perspective of teachers' ongoing professional growth. A review of the literature on professional development reveals a number of other factors influencing teachers' capacity to develop professionally. Some of these factors include teachers' level of self-efficacy and self-reflection, the environment or culture within which they teach, at which stage of their career they are in, their gender, and time issues - both within school and outside of school hours and how teachers' perceive and prioritise time. This chapter reveals the complex nature of teaching, the school environment and how various factors, either singly and/or combined, affect teachers' capacity and willingness to engage in ongoing learning.

**Career Phases/Stages**

When considering factors that are likely to affect teachers' capacity to develop professionally, career phase/stage must be examined. Educators are becoming increasingly aware of age trends in teachers in Australia (Ingvarson & Loughran, 1992; Dinham, 1993a; 1995; 1997; Education Department of Western Australia, 2000a). In an issue paper produced by the Education Department of Western Australia in March 2000, it was reported that the "secondary teacher workforce aged significantly in the last decade" with the "average age increasing from 37.5 years to 41.8". Although age does not necessarily link directly to years of teaching experience due to mature age entry into teacher education programs, it does have implications for teachers in relation to professional development.

Huberman indicated that in the recent past little research was conducted on "teachers' professional life cycles and only a handful on ... teachers' careers" with a heavy emphasis on teacher education programs and the initial years of teaching "as if the ensuing forty years were less meaningful units of analysis" (Huberman, 1992, p.122). He pointed out that examining career cycles/stages or phases is not an exact or immutable science; rather career sequences are tentative and uneven.
Acknowledging this, he identified "some reasonably strong trends which recur across studies, even across studies in different national contexts" (Huberman, 1992, p.123).

A heuristic of a teacher's career was developed by Huberman. This schematic was developed as a result of examination of a range of studies involving teachers of various ages. He identified seven key phases, however, they are not necessarily sequential or all present in an individual's career. There are alternative career trajectories.

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Figure 3.2: Huberman’s heuristic of a teacher’s career (1992)

**Survival and Discovery (1-3 Years of Experience)**
The first phase is "survival" and/or "discovery" which occur approximately in the initial three years of teaching. The survival aspect relates to the reality shock of the classroom and the school, the simultaneous and complex nature of teaching, attention to self, the gulf between ideals and the reality of the classroom situation, and the balancing of professional distance with "intimacy". Discovery encompasses more
positive aspects - of having your own class, becoming a colleague, and the freedom to teach and make decisions related to teaching. Huberman indicated that these two states may coexist simultaneously or alternatively be absent altogether (Huberman, 1992, p.124). Similarly, Berliner (1988) described various stages of development with novice being the initial one. In his “novice” stage students and beginning teachers tend to follow a set of context free rules and procedures learned in training programs with little flexibility. Likewise, Steffy and her associates (Steffy, Wolfe, Pasch, & Enz, 2000) identified an early “novice” career stage; however, in their model this stage involved preservice teachers’ practicum experiences. Their next phase, which coincides with Huberman’s “survival” and “discovery” stage, is the “apprentice” phase and includes the induction period until the “integration and synthesis of knowledge. Pedagogy, and confidence emerges” (Steffy et al., 2000, p.6). Berliner’s (1988) advanced beginners progress to commencing integration of experience and theory, and perceiving the similarities in different contexts. In the second and third year of teaching they start to develop strategic knowledge and begin to take into account context factors.

**Stabilization (4-6 Years of Experience)**

Frequently at this stage the individual demonstrates commitment to the teaching profession and gives up other choices. Huberman (1992) indicated this was particularly difficult for secondary teachers who may leave their options open for several years. Demonstrated was “greater instructional mastery” and comfort, increased affiliation with the teaching community and freedom from direct supervision. With the increased skill level comes the ability and desire to mould, add to and tailor strategies to one’s own style of instruction; an increase in spontaneity, humour and flexibility to “seize the moment”. Berliner (1988) indicated that teachers in the early years in this group have limited flexibility and fluidity. They are able to set priorities and make conscious decisions and demonstrate their increased confidence through their exercising of judgement as to what is and what is not important. Their goals are decisive and they are able to achieve them. From the fifth year and onwards, Berliner classified teachers as “proficient”, developing a degree of intuition and acquiring a more holistic perspective in relation to their teaching. Their decision-making processes may still be deliberate and analytical. The stabilization
phase is probably the most secure. Literature subsequent to this phase diverge, however, Huberman offers a modal sequence (Berliner, 1988; Huberman, 1992, p.124). In Steffy and associates’ model of career development, the teacher progresses to the “professional” phase following the apprentice phase. Those who are “professional” teachers tend to form the “backbone of the profession” and are “competent, solid, and dependable”. They frequently view themselves as “student advocates”, with their relationship with students being their primary concern with many “having no aspirations to become administrators” (Steffy, Wolfe, Pasch, & Enz, 2000, p.6-7).

**Experimentation/Activism (7-18 Years of Experience)**

Following the consolidation of instructional expertise the teacher attempts to increase his/her effectiveness, frequently by experimenting with varied student groupings, materials and sequences. With this experimentation comes an awareness of the institution impediments or barriers that affect the attempts to change. Awareness grows of not allowing oneself to become stale in their profession (Huberman, 1992, pp.124-5). Teachers from this experience level and onwards are considered by Berliner (1988) to be “expert” teachers. They are characterised by the effortlessness and fluidity of their performance in the classroom, their intuitiveness and sense of appropriate action. They may appear irrational and are able to analyse and reflectively process problems when they arise. Although Steffy and associates do not follow a distinct year correlation in their model of teacher career cycle they identified a phase that symbolises achievement of a high standard. They refer to this phase as the “expert teacher”. Those at this level anticipate student responses and modify and adjust instruction to promote growth. They “nurture growth and development in all students”, “reflect on their practice, facilitating growth and change”. They actively network with other experts in the educational community and frequently hold leadership roles both within and without the school (Steffy et al, 2000, p.8). Ross (1994) also indicated that teachers’ perceptions of general teacher efficacy (teachers in general can affect student achievement) reduces during this career stage, even though their personal teacher-efficacy (an individual’s belief that he/she can affect his/her students’ achievement) remains the same or increases.
Taking Stock: Self-Doubt (7-18 Years of Experience)
No clear link exists in the literature to “mid-career crisis”. Symptoms vary from superficial to critical. They range from a “gnawing sense of routine to a full-blown, radical reassessment with regard to staying in or leaving the profession”. Between years 12 to 20 a sense of monotony may emerge, with some feeling disenchanted, resulting from attempts to change or reform practice. These symptoms may accompany the feeling that other career choices may be out of reach if action isn’t taken quickly. This feeling is referred to as stocktaking. Huberman indicated that stocktaking is more frequent in the 35-45 years age group. Men were more inclined to “radical” self-assessment than women who appeared better able to perceive the “importance of their career to other commitments in their lives” (Huberman, 1992, p.125). Huberman’s life-cycle research also revealed large cohorts of teachers in the 10 to 15 years experience group who were disengaged and/or making no attempts at refining or modifying instructional practices that they judged to be “problematic”. These teachers obviously tended to experience professional dissatisfaction (Huberman, 1992, p.137).

Serenity (19-30 Years of Experience)
Distilled from a variety of literature, Huberman traced a gradual loss in enthusiasm and energy that was compensated by increased self-acceptance and confidence. In the Peterson and Prick study of teachers in the 45-55 age group, most respondents described a “fluid shift” from a phase of “near-manic activism” to a more mechanical and relaxed mode in the classroom (Huberman, 1992, p.126).

Conservatism (19-30 Years of Experience)
This phase demonstrated a link between age and dogmatism. Some of the described characteristics included increasing resistance to innovation, greater nostalgia for the past, increasing prudence, and “the concern with holding onto what one has rather than with getting what one wants” (Huberman, 1992, p.126). The Peterson and Prick study with a sub-sample of older teachers in the 50-60 years age range found that this group of teachers tended to “complain a lot”. The sort of things that concerned them was a new generation of teachers who appeared to be less disciplined, more decadent
and less motivated. In their perception, administrators were considered opportunistic in nature and younger colleagues displayed a lack of commitment to the profession (Huberman, 1992, p.126).

It was proposed that teachers within this experience range are more likely to be in the 45 years of age and onwards age grouping. It would also correspond with an increase in those who have attained promotional positions within this experience level stage. In the Age Profile Issues document (Education Department of Western Australia, 2000a) the average age of Western Australia teachers occupying promotional positions was 47.4 years. Incidentally, the majority in promotional positions were male (66%). Steffy and associates (2000) model describes some as “distinguished” teachers, but they do not align this status with any corresponding number of years experience. Those in this phase are “truly gifted in their field”. They tend to “impact education-related decisions at city, state, and national levels” (Steffy, Wolfe, Pasch, & Enz, 2000, p. 9).

Dinham (1995) reported that older teachers are generally less mobile, in terms of being prepared to teach in various situations, due to financial and family commitments. This results in a lack of movement between schools. Concomitantly, this also increases the likelihood of teachers becoming stagnant and leads to situations where teachers in rural areas have relatively fewer years of teaching experience than their counterparts in the metropolitan areas. Additionally, it has a flow on effect with teachers in rural areas feeling trapped in their positions, unable to return to the metropolitan area.

**Disengagement (31–40 Years of Experience)**

Most life-cycle literature emphasised the increased withdrawal and internalisation at the conclusion of an individual’s career. Although this may appear to be a negative aspect, the tone did appear to be positive with a gradual disengagement from the investment in work to other concerns and interests. There was also a movement towards more reflective pursuits. Other studies identified a disengagement from practices and policies of which the individual disapproved, with Peterson and Prick
reporting teachers yearning for calmer times as they approached retirement. Others felt that this might be due to the natural progression of “ceding” your place to “younger colleagues and fresher ideas”. Ingvason and Loughran (1992, p.4) reported that “Australian teachers were more likely to be exhausted than disengaged according to teacher stress figures”.

Depending on the career trajectory this final phase can be either “serene” or “bitter”. Huberman identifies possible career trajectories that would be problematic, such as moving from reassessment/stocktaking straight to disengagement of an acrimonious nature. Notably in men of the ages of 45-50, there is a gradual psychological internalisation that contributes to this phase (Huberman, 1992, pp.126-7). The final phase described by Steffy is that of “emeritus” teacher and “marks a lifetime of achievement in education”. These teachers choose to continue their involvement in education following retirement through alternative roles, for example, “consultation, volunteerism, mentoring” and other service activities. Steffy and associates indicate that these teachers “deserve society’s recognition and praise” (Steffy, Wolfe, Pasch, & Enz, 2000, p.9-10).

**Serene or Acrimonious Disengagement**

It would appear to be desirable to identify the factors that may contribute to teacher dissatisfaction in later career in order to counter these and facilitate a more serene conclusion to a teaching career. Apparently predicting dissatisfaction early in a career, that is, prior to 12-15 years experience is difficult. Huberman reported the “ultimate discriminant analysis” as powerful, predicting correctly the majority (89% and 97% respectively) of cases of “disenchantment” and “satisfaction” with teaching. The analysis inferred that teachers who “steered clear of reforms or other multiple-classroom innovations, but who invested consistently in classroom-level experimenting” or “tinkering” with new and different student groupings, materials, minor changes in assessment and grading systems were more likely to be satisfied than “their peers who had been heavily involved in school-wide or district-wide projects” (Huberman, 1992, p.131). In other words, teachers who had engaged in personal experimentation with classroom skills and arrangements accompanied with “early concern with instructional efficiency” or pedagogical expertise was one of the
strongest predictors of ultimate satisfaction. This appears to coincide with Bandura’s work on self-efficacy and the link with increased skill level (Bandura, 1986). It also endorses Scott’s findings that teachers who continued implementing innovative models of teaching were more efficacious than their less adventurous peers and reported increased levels and quality of student performance (Scott, 1996; 1998).

Interestingly, Huberman inferred that teachers who continued to refine their teaching expertise and performance were more likely to be satisfied at the conclusion of their career. This was probably due to their investment in their self-efficacy (Bandura, 1986; Guskey, 1987; Ashton & Webb, 1986, in Woolfolk, 1993; Scott, 1996; 1998). Conversely, it was a concern that teachers who were involved in system changes and other reform processes were more likely to become disenchanted even though they found it “stimulating and enriching while it was happening” (p.131).

Another factor identified was the concern with becoming “stale”. Teachers who experienced this undertook slight role shifts in grade level, academic stream, or subject area to maintain the development of their expertise and interest. They were not “warding off stagnation” by leaving the classroom, rather they were drawing on the diversity within the classroom setting to achieve this end. The other factor was associated with long periods of professional satisfaction. These teachers had been highly active and effective teachers and achieved significant results in the classroom with apathetic students. Frequently these students “came alive”, classrooms “buzzed with purposeful activity” and they experienced intense relationships with their students. Professional satisfaction was regularly accompanied by a major shift in pedagogical practice such as a new set of materials, a more responsive or diagnostic approach and/or an interest-centred curriculum, which demonstrated some exceptional results. This run of good years could also be adversely affected by poor decisions by District administrators or by Heads of Department. The findings related to professional satisfaction described by Huberman endorses the literature on “teacher empowerment” and “satisfaction” through increased shared decision-making or, at least, true or genuine consultation and control over career trajectories (Goodson, 1992; Ingvarson & Loughran, 1992; 1994; Dinham & Scott, 1997; Shen, 1998; Burke, 2000).
Career Phases and Professional Development

Huberman cites networks as advantageous to teachers' professional growth. Teachers will utilise these networks as a repository of increased knowledge or pooling of ideas in experimentation in their classrooms. With this in mind, he suggests that attempts should be made to "increase the number and quality of colleagues or experts to whom teachers spontaneously turn, in the course of their private tinkering and experimentation in their classrooms". Networks are useful but can be limited in that they may not necessarily include the highest quality sources, or may not offer anything that the teacher did not already have. Ideally he suggested that networks should include a greater number of people, including "some craftspeople likely to have some new tricks" for them to be more effective. Additionally, resources need to be relocated closer to the teachers who are going to be using them rather than administrators and centres that provide the services. Huberman stated that teachers within these networks should "actually experiment in the classroom with the skills of strategies that emerge from discussions and observations" rather than passively paying lip service but not implementing, or flying off in several directions for several weeks at a time. He posited that this process would be most effective because it channelled the spontaneous tinkering of teachers, which provided them with pleasure and satisfaction in their work, opportunities for ongoing exchange, access to higher skill levels and expertise and the incentive for continuing the implementation through the company and interaction with others in the network. He also commented briefly on the influence school culture has on these networks. His discussion on networks and the positive outcomes in relation to the ongoing development of pedagogical expertise endorsed Joyce and Showers (1986) components for effective teaching and learning, particularly the positive effects of coaching and support in the workplace on transfer of skill into regular repertoire.

School Culture

School culture is a factor that influences teachers' capacity and willingness to engage in professional development. Numerous researchers report teachers' environments as affecting teachers' work and professional development activities (Joyce, Murphy,

When most educational changes or reforms are linked to professional development of teachers the following question takes on an importance focus, Does the culture affect the implementation of change? Moffett (2000) stated in her article that reforms were “destined to fail” if the district and school leaders do not examine the school and district culture to ascertain if it will support the change process or impede it (p.36). Sarason (1990, in Moffett, 2000) linked the learning conditions for teachers with those of students, stating that if teachers do not work in an environment that promotes ongoing learning then it would be “almost impossible to create and sustain productive learning environments for students”. Hargreaves and Fullan (1992, p.1) stressed the need for creating work environments that support ongoing, continuous professional learning, the opportunity to teach, not just to teach but to “teach well”, rather than merely surviving. The literature also indicated there is a link between culture of the school and student achievement. Moffett stated “more than almost any other factor, the sense of a professional community in schools enhances student achievement” (Middleton, 2000; Moffett, 2000, p.36).

A common catchcry in the literature is “teacher empowerment” as the key to enabling change or ensuring ongoing professional development. That said, teachers’ environment is also a factor in this goal of empowering teachers (Shen, 1998). McElrath (1988, p.6) stressed this, stating “empowerment means working in an environment in which a teacher acts as a professional and is treated as a professional”. The crucial aspect of being treated as a professional would be demonstrated if “Boards of education and school administrators [spent] more time listening to teachers as they define barriers to achieving the goals of the system” (McElrath, 1988, p.6).
Hargreaves and Fullan’s considerable research in schools has revealed schools demonstrating a variety of school environments or “cultures”. Andy Hargreaves defined culture as carrying “the community’s historically generated and collectively shared solutions to its new and inexperienced membership. It forms a framework for occupational learning”. He points out that this can be subject specific, situation specific eg., metropolitan versus rural or country teaching. “Cultures” give “meaning, support and identity to teachers and their work”. David Hargreaves (in Hargreaves, 1992) felt that the teaching profession may have a representative “key culture”, that of “individualism”, which was “so pervasive ... it might be deemed characteristic of the entire occupation”. Other examples of cultures were “academic” and “pastoral” (or guidance orientated), “incorporative”, “developmental” and “academic-elementary”. Feiman-Nemser and Floden (1986, in Hargreaves, 1992) perceived teaching cultures as incredibly diverse, so much so that assuming “cultural uniformity is .... untenable”. They point out that differences in age, experience, social background, gender, subject specialisation etc., among teachers necessitate the case for diversity. Andy Hargreaves continues his discussion of culture by stating that these researchers may have overlooked the possibility that “subcultures” or “various cultures” may exist within a “generic” one.

**Content or Form of Culture**

Hargreaves (1992) divided culture into two main components or characteristics – content and form. Content relates to what teachers “think, say and do” and consists of the values and beliefs, habits, attitudes, and “assumptions and ways of doing things that are shared within a particular teacher group, or among the wider teacher community”. This aspect of culture still requires investigation. Form does not include attitudes, beliefs and practices, but rather focuses on the patterns of interactions and associations that form between members of the culture. It includes the “articulation of relations between teachers and their colleagues”. Hargreaves proposed that changes in “content” culture may be contingent “upon prior or parallel changes in the ways teachers relate to their colleagues, in their characteristic patterns of association”. He identified four main “forms” of culture, individualism, balkanization, collaborative, and contrived collegiality. These four are outlined as follows:
**Individualism**

Most of the literature associated with education, educational change and professional development report the isolated nature of teaching. Individualism incorporates this characteristic where teachers have little idea of what their colleagues are doing, with many enjoying the privacy of teaching (Hargreaves, 1994, p.169). Unfortunately with privacy and autonomy comes the shutting out of “possible sources of praise and support. Isolated teachers receive little adult feedback on their value, worth and competence”.

Lortie (1975, in Hargreaves, 1992) identified the aspects of “presentism, conservatism and individualism” which fit with the culture of “individualism”. Presentism was where teachers focused their energies on “short-term planning in their own classrooms” as they perceive that this was “where their energies [were] likely to make a difference”; conservatism was demonstrated when teachers avoided reflecting, discussing or making a commitment to change which may alter their status quo or bring into question what and how they teach; and individualism was where collaboration with their colleagues was avoided from the fear of criticism or judgements that may arise from the process. Hargreaves found that paradoxically schools that demonstrated this form of culture could be “rewarding places” where “jokes”, “war stories” and “news on particular students and parents” are shared and traded in a “close social setting in the staff room where it [was] considered a ‘retreat from the front line’”. Nias (1989, in Hargreaves, 1992) reported that new teachers or student teachers were appalled at the low intellectual level of teacher talk in these staff rooms where conversations were kept simple and lightweight in order to limit topics which could cause disagreement. Individualism appears to be “alive and well in most schools” and may be more of an “expression of creative originality and principled disagreement” than a “source of weakness and diffidence” (Hargreaves, 1992, p.235).
**Balkanization**

Balkanization is rather more characteristic of secondary than primary/elementary schools. In this form of culture, teachers associate in groups rather than as a whole school. The school consists of “separate and sometimes competing groups, jockeying for position and supremacy like loosely connected, independent city states” (Hargreaves, 1992, p.237). Teachers spend most of their time, attach their loyalties to, and socialise during the school day within these groups. This culture may lead to groups working independently, creating indifference to other groups with a resultant breakdown in communication across the school. This lack of communication and interaction can also result in inconsistencies in expectations of student performance and behaviour, and poor monitoring of progress. It can be very divisive causing “enmity, jealousy and rivalry between more-favoured and less-favoured teacher groups” with resultant marginalisation of less academic subjects due to the perception that they are less worthy or less recognised. This form of culture was reported by Susan Robertson (1993) in Western Australian education with the advent of self-managing schools or devolution. She reported …

> the new regime of power also exacerbated status differentials between subject areas, with some areas increasingly marginalized and viewed as less legitimate because of the nature of knowledge taught (such as industrial arts). The outcome was ... less favour, and financial support ... they had to fight for their subject areas’ survival in the school (p.129).

Ingvarson and Greenway (1984, in Hargreaves, 1992) noted that this form of culture also affected professional development. They indicated that professional development was “influenced more pervasively by administrative and contextual features of the particular educational system within which teachers work than by the particular forms of in-service education available”. Balkinized cultures develop from the leaders in the school failing to “to develop their teachers by valuing them ... failing to value many of the things that they do ... (and the) things for which they stand”. Leaders also can create this culture by demonstrating bias in their values eg., valuing academic teachers over the practical ones, the energetic or young teachers over their more experienced or perhaps older counterparts, or the professional
development “gourmet omnivores” who actively seek out opportunities for growth and who make things happen within schools and districts (Joyce & Showers, 1995, p.178). Hargreaves relates this not only to what they value and the breadth of what they value but also on “generosity of spirit” and “educational vision” (p.237).

**Collaborative**

The support, openness, routine help and trust that operate on a day-to-day basis define collaborative cultures. These characteristics are not necessarily overt, formally organised or initiated and established for particular projects by administrative personnel. The teachers are “more united than divided” and tend to display the empathetic gestures, such as ...


jokes and glances that signal sympathy and understanding ... kind words and personal interest shown in corridors or outside classroom doors; ... in the acceptance and intermixture of personal lives with professional ones: in overt praise, recognition and gratitude: and in sharing and discussion of ideas and resources.

Reflection is conducted both on successes and failures “with a view to gaining help and support. Teachers do not waste time and energy covering their backs here”, “tolerate disagreement” and share their “educational values” (Hargreaves, 1992, p.238).

Collaborative cultures are warm in terms of “human relationships”; nevertheless these are not accidental or fortuitous, rather are “created and sustained” and require a lot of work to maintain. Hargreaves identified leadership as crucial in establishing and maintaining this form of culture. School leaders lead “through example” utilising “frequent praise: through helpful, personal notes placed in staff mailboxes” or “indulging their staff with little treats like cakes or flowers which show caring and thoughtfulness”. The Principals display “an interest in what is going on ... and pleasure in making contact with teachers and students alike” and maintain “high visibility around the school”. He or she also plays down status differences and invests “trust in the skills and expertise and professional judgement of ordinary teachers” (p.238). Principals can also provide timetabling structural changes that support teacher collaboration. Similarly, Fullan (1991) emphasised the importance of
the principal in shifting the school culture. He indicated that the principal is the “person most likely to be in a position to shape the organisational conditions necessary for success, such as the development of shared goals, collaborative work structures and climates, and procedures for monitoring results” (p.76).

Hargreaves indicated that collaborative cultures could be an antidote to isolation and individualism that restricts and impairs teachers’ performance and their willingness to improve and implement change. Darling-Hammond reported that teachers who “have access to teacher networks, enriched professional roles, and collegial work feel more efficacious” in gaining the knowledge they need to meet the needs of their students and more positive about staying in the profession (Darling-Hammond, 1996, p.9; Ross, 1994). This culture is a “rarity” and is not easy to create or sustain and although “preferred … is just not compatible with the prevailing context of teachers’ work” due to the constraints of time and curriculum demands.

Bounded collaboration occurs more frequently. This is collaboration that is restricted in its scope, depth, frequency, persistence or a combination of all of these factors. It does not extend to the basic or fundamental principles of the ethics of teaching and learning practices, rather remains in the realms of material-sharing of a more immediate, specific and technical nature, and routine advice-giving. It relates to special events and initiatives, instead of collaboration embedded in the routine interpersonal relationships that comprise school life. Hargreaves reviewed a range of studies and indicated that bounded collaboration is the rule rather than true collaborative cultures (Zahorik, 1987 and Schneider & Hochschild, 1988 and Nias et al, 1989 and Rosenhaltz, 1989 and Little, 1989 in Hargreaves, 1992)

**Contrived Collegiality**

A key question emerging from Hargreaves’ work on culture is: What is required to move from one culture form to another? For example, what is needed to move from an individualistic to a more collaborative culture? The statement was made that “teacher development must be reconnected to curriculum development, so that there is something sufficiently broad and significant about which to collaborate” otherwise bounded collaboration will result.
One route to developing a more collaborative culture is to initiate what Hargreaves refers to as “contrived collaboration”. It is characterised by a set of formal, specific bureaucratic procedures that increase the focus on “joint planning and consultation”. He identifies it as existing in initiatives such as mentor teaching, peer coaching, joint planning, “formally scheduled meetings and clear job descriptions and training programmes for those in consultative roles”. He described these as “administrative contrivances designed to get collegiality going in schools where little has existed before”. It may result in further stress and work overload on teachers by requiring more meetings and taking up time that may have already been used in informal social interactions, for example, time in the staff room chatting and joking together or “be an affront to the dignity of teachers by failing to recognise existing collegial relations by making them more administratively cumbersome”. Sparkes and Bloomer described what they refer to as a paradox where teachers are frequently being urged, organised or structured into contrived collegial procedures at a time when they have less control over curriculum changes (Sparkes & Bloomer, 1993).

Although contrived collegiality appeared to have negative connotations, Hargreaves notes that these initiatives may result in increased skills and expertise and “the successful implementation of new approaches and techniques from the outside into a more responsive and supportive school culture”. These initiatives can serve as a preliminary phase in the development of true collaborative relationships. It can also assist teachers to focus on “specific tasks and changes that may need to be dealt with” and may assist in resisting “collective complacency”.

**School Cultures and Professional Development**

As depicted in Guskey and Sparks’ model (refer to Figure 2.5) and reiterated by Fullan (1991), culture is one of the three major factors that impact upon the success of professional development in improving student learning (Guskey & Sparks, 1991). How do cultures influence teachers’ capacity or willingness to engage in professional development? Individualistic and balkanised cultures do not provide much scope for professional development that promotes positive educational change. Certain cultures may make many teachers less responsive to innovation that is imposed by
administrators or other outside sources. This may result in teachers exhibiting a "protective" reaction towards "their own classroom and departmental domains which new programmes, newly advocated methods of instruction or new cross curricular initiatives” may appear to threaten (Hargreaves, 1992, p.237).

Collegial cultures that support collaborative processes appear to be the most conducive environment for ongoing professional development of teachers. Within the collegial form of culture local curricular development can occur with the exercise of discretionary professional judgement. The interweaving of teachers’ personal and professional lives characterised by the qualities of sharing and trust in collegial and collaborative cultures provide the optimal environment of change. Collegial cultures are not quick fixes and take time to cultivate and as a result are frequently not the first choice of administrators who are seeking an instant solution to school restructuring. Even though collegial cultures may not present as a quick fix they are worth the effort considering Fullan’s conclusion of interrelatedness between “collegiality, open communication, trust, support and help, learning on the job, getting results, and job satisfaction and morale” (1991, p.77). The issue of time required to bring about “reculturing” was noted by Hargreaves and Fink (2000, p.30). Additionally, administrators who are “control-conscious” may find the unpredictability of collaborative cultures “a threatening prospect” and the results of this culture “may not correspond with administrators’ intentions and purposes” (Hargreaves, 1992, p.237). Hargreaves summed up by stating that educational change and teacher development will have little chance of success unless the teacher is acknowledged as a professional person with focus and purpose. The process of human growth is slow and takes place in the collective and individual lives of teachers.

**Collaborative/Reflective Culture – The Debate**

Smyth queried the accepted notions of reflection and collaboration as automatic positive aspects of teaching. He felt that these terms of reflection and collaboration, rather than “being emancipatory”, were like an “‘iron cage’ that served to entrap” and “harness teachers more effectively” to “bolster the New Right ideology of radical interventionism” (Smyth, 1992, p.270; 1993); and the promoting of
“collaborative structures” is being done for “essentially managerial ends” (Smyth, 1991, p.2). Teachers within these structures may feel pressured to take part in “contrived” collegiality such as “peer coaching, mentor teaching and joint planning” to avoid being labelled as unprofessional (Smyth, 1991, pp.3-4) a concern that was later reiterated by Hargreaves (1994). Smyth’s expressed the major concern that such activities like “peer coaching, mentor teaching and joint planning” were frameworks where teachers, rather than “becoming equal collegial peers”, would “become agents charged with policing one another’s oppression” (Smyth, 1991, p.6). These activities would be used by central authority as an evaluative tool to control through the “orchestration of quite explicit meanings” attached to “notions like “professionalism”, “co–operation”, and “teamwork” (Smyth, 1991, p.8).

Reviewing Hartley’s (1986) discussion of the inservice structures for teachers in Scotland, Smyth likened this “eliciting teachers’ compliance to old underlying forms of authoritarianism” to the tendencies being exhibited here in Australia with teacher appraisals or “performance review interview” where “temporary” or newly graduated teachers are required to be involved in “collaborative” discussions regarding their classroom performance and established teachers are required to undertake performance management. These discussions take place with a “trusted colleague” who is usually “hierarchically superior to them and in the line of management function” within the organisation of the school. These discussions are performed to satisfy the individual’s needs and ensure that the teacher is in line with the “profiles” and “mission statements”. This is again promoting a “culture of collegiality” whereby professional development needs are only relevant if they fit in with the objectives of the “organisation” and within the limited budget facilities of the school (Hartley, 1986, in Smyth, 1991, p.9).

**Reflection and Collegial Processes - An Alternative Perspective**

Smyth’s view of “contrived” collegiality in the guise of arrangements such as “peer coaching, mentor teaching and joint planning” – tools that are used to police the oppression of teachers, requires clarification (Smyth, 1991, p.6). Joyce and Showers (1995) provide clarification of intent when they outlined the refinement in format and meaning that the various types of “coaching” (eg., technical coaching, collegial
coaching, challenge coaching, team coaching, cognitive coaching and peer coaching) have undergone over the last ten years in their book on professional development and in their article that tracked the evolution of peer coaching (Joyce & Showers, 1995; Showers & Joyce, 1996). They specified that the “peer coaching” they establish in schools no longer includes the element of evaluation or feedback incorporated into it, clearly stating ...

*many believe that the essence of the coaching transaction is in the offering of advice to teachers following observations. It is not. Teachers learn from each other* (my emphasis) *in the process of planning instruction, developing the materials to support it, watching each other work with students, and thinking together about the impact of their behaviour on the learning of their students. The collaborative work of peer–coaching study teams is much broader than observations and conferences* (Joyce & Showers, 1995, p.125).

When investigating the Joyce and Showers’ approach to the teaching/learning processes in professional development they clearly feel that teachers are professionals who “are wonderful learners” and are in agreement with Smyth’s view that these collaborative structures should not be used as “managerial tools” to entrap teachers and measure their professionalism, but rather the opposite, they should be a device to free-up teachers and support their efforts in adopting innovative strategies which will ultimately benefit their students (Joyce & Showers, 1980, p.379; 1995). In addition to Joyce and Showers perspective, many leading educational researchers such as Sparks and Hirsh (1997), Lieberman, (1995), Darling-Hammond, and Mclaughlin (1995) and organisations such as the National Staff Development Council (NSDC, 2001 - revised), have identified the importance of teachers’ collegial activities, particularly when these are focused on increasing student achievement. Katzenmeyer & Moller’s (1996) research on teacher-leadership likewise emphasised the considerable professional growth opportunities in teachers’ collaborative activities. Collaborative activities also appear to have a positive effect on teacher-efficacy, although Ross (1994) reported that there is somewhat confounding research surrounding the influences on teacher-efficacy.
School Culture - Organisations or Communities?

Sergiovanni reviewed the characteristics of current educational culture. He posits that education has “borrowed” organisation theory as “fundamental frames for thinking about how schools should be structured and coordinated” (Sergiovanni, 1993, p.2). Management theory, a derivative of organisational theory, provided the basis for how leaders in schools perceive quality, productivity and efficiency, and delineates how compliance is to be achieved by those encompassed within this system. In this system individuals further up in the hierarchy are presumed to have more “moral superiority” and “they know more about teaching and learning and other matters of schooling but (also that) they care more as well” (p.4). This has the effect of separating people that work together and this is not healthy. People need to have ties to work and to people at work that are more than just “contractual”.

In organisational theory the prime motivator is self-interest. Rewards and punishments are traded for compliance in order to get the job done. Teacher empowerment relates to “shared decision making, site-based management and similar schemes”. Sergiovanni (1993) introduces the term “gesellschaft” as representative of modern formal organisations where the more compliant and hard the people work for the organisation the more they are accepted. And tangentially, the relationships are highly competitive (p.10).

At the opposite end of the spectrum is school culture as “community”. Communities are defined by their “centers of values, sentiments and beliefs that provide the needed conditions for creating a sense of ‘we’ from a collection of ‘I’s” (Sergiovanni, 1993, p.6). Members of a community are connected by emotional and normative ties, by interdependencies and mutual obligations. Theories of leadership and administration revolve around young children and adolescents and should have “meaning and significance resulting from shared values and ideas that connect people in a different way to that of organizations” (p.8). Sergiovanni terms this community culture as “gemeinschaft” where …

relationships are both close and informal. Individual circumstances count. Acceptance is unconditional. Relationships are cooperative …

subjectivity is okay. Emotions are legitimate. Sacrificing one’s self
interest for the sake of other community members is common .... Knowledge is valued and learned for its own sake not just as a means to get something or go somewhere. Children are accepted and loved because that's the way one treats community members (p.15).

In “gemeinschaft” leadership is “embedded in shared ideas”. Professional development does not escape scrutiny in his gemeinschaft, where he states that “in-service and staff development would move from the administrative side of the ledger to the teacher side as part of teachers’ ongoing commitment to practice at the edge of their craft” (p.21).

Sergiovanni sums up his discussion by stating that schools are neither gemeinschaft nor gesellschaft. Rather they possess characteristics of both. He continued reflecting “I believe that most schools are now too gesellschaft and that we need a realignment in favor of gemeinschaft, it is important to recognize that the gesellschaft perspective is both valuable and inescapable” (Sergiovanni, 1993, p.19).

**Time in Educational Settings**

Much of the literature in which professional development was discussed reported or noted issues with time, particularly its influence on teachers’ capability and willingness to participate in professional development and reform processes (Doyle & Ponder 1977, in Guskey & Sparks, 1991; Joyce, Weil, & Showers, 1992; Brandt et al., 1994; Darling-Hammond, 1996; Showers & Joyce, 1996; Birman et al., 2000; Hargreaves & Fink, 2000; Magestro & Stanford-Blair, 2000; Sherin, 2000). In a recent report published by the Australian Council of Trade Unions (ACTU), almost three quarters (73%) of teachers in Australia reported working forty hours a week or more, over half (52%) are working forty five or more hours a week and less than a third (27%) were working fifty or more hours a week. This is despite the fact that most awards and agreements provide for nominal working weeks of thirty five to thirty eight hours per week. Well over half (60%) were not satisfied with the balance between work and family commitments. The majority (88%) reported that they had to cut corners with marking and preparation due to excessive workloads, were unable to provide students with enough individual attention (93%), were overwhelmed with
administrative duties which took time away from classroom concerns (94%), and did not feel that they had enough time or energy left for professional development activities (91%) (Gale, 1999, p.30).

Hargreaves found that teachers in Ontario reported the “benefits of preparation time for relieving the stresses of their work and creating opportunities to consult with colleagues”. That said, this was not a “guarantee” that collaborative structures were going to be established and maintained, it simply provided the “opportunities for developing collaborative cultures” (Hargreaves & Fink, 2000, p.33). A witty comment by a teacher involved in an inservice program demonstrated teachers’ concern with time - “the lack of time to do the things that are all worth doing ... I will be ready to retire when I have learnt some of it” (in Clarke & Hollingsworth, 1994, p.15).

Woodilla, Boscardin and Dodds (1997), investigated how educators perceived time with respect to their work and professional development activities. They identified eight dimensions of time grouped into three main themes. The three themes were “connections between life-world and educational practices, the time economy of the school, and strategies for using time according to individual needs” (p.299). Teachers reported that ‘finding time’ for professional development depended on achieving a balance” among the complex and conflicting demands on their time. They found teachers’ frequent references to time underscored their concern with time issues and “reflected the pervasiveness and centrality of time consciousness in their lives” (p.300). Woodilla and associates developed a complex model depicting the interaction and interconnectedness of the various dimensions of time they found teachers using.

**Classifications of Time**

Hargreaves (1994) also investigated issues related to time in schools. He classified time into four main categories technical-rational, micropolitical, phenomenological and sociopolitical time.
**Technical-rational**

Time as a *technical-rational* commodity is a “finite resource or means which can be increased, decreased, managed, manipulated, organised or reorganised in order to accommodate selected educational purposes” (p.96). In this mode it is an objective variable, which can be managerially manipulated for productive use to create real benefits. It can be utilised to promote collegial interactions which break down isolation and encourage best practice analysis and study. It can also be utilised for curriculum development (Cambone, 1994).

**Micropolitical**

Micropolitical time also has the aspect of objectivity and is scheduled time distributions between different teachers, grades and subjects. It reflects dominant configurations of power and status within schools and school systems. This is apparent in several ways, such as, when “higher status” more “academic” subjects receive more generous time allocations or are granted more favourable scheduling slots and/or are made compulsory as opposed to less academic, lower status units (Hargreaves, 1994, pp.98-9; (Cambone, 1994)).

**Phenomenological**

Phenomenological time has an important “*subjective*” dimension and can seem external to the teacher. It is where people perceive time differently to the “clock time” seeming to “drag” or “fly” depending on what they are doing. Teachers frequently perceive time differently in the classroom, which may be at variance with administrator’s innovation schedules. Therefore in the context of implementation of innovation, “teachers feel pressure and anxiety because of excessive time demands, along with guilt and frustration because they are implementing the new program less quickly and efficiently than the administrative timelines require” (Hargreaves, 1994, pp.100-1). When this occurs, conflict is likely to arise between the perceptions of administrators and teachers, whereby administrators appear “insensitive” to teachers’ requests and demands for “additional planning time” and/or “relaxed innovation timelines” (p.101).
Monochronic and polychronic time-frames

Two sub categories that Hargreaves discusses are Hall's conceptions of time, that of, monochronic and polychronic time-frames which also interestingly have a gender application (Hall, 1984, in Hargreaves, 1994). Individuals that exhibit a monochronic time-frame tend to do one thing at time, in a series, or as a linear progression through discrete stages. They concentrate on completion of tasks, procedures and schedules with this priority over the cultivation of relationships with people. It is pervasive in Western cultures, in large bureaucratic organisations and interestingly, is most widespread among males.

Conversely, individuals who utilise a polychronic time-frame concentrate on doing more than one task at time or in combination, with their priorities being the successful completion of the task or “completing their transactions” rather than meeting some form of deadline or schedule. They are more people orientated than task orientated. Administrators that exhibit this time-frame perspective allow subordinates high discretion over time schedules, but are more likely to have “stricter control over the description and evaluation of the task itself”. It is more prevalent in “Amerindian” and “Latin or Mediterranean-style” cultures. It is also usually found more among women than men (Hargreaves, 1994, p.103).

Sociopolitical

Sociopolitical time is where a dimension of time becomes “administratively dominant” and becomes involved in the “control of teachers’ work and the curriculum implementation process” (Hargreaves, 1994, pp.106-7). Monochronic time-frames prevail in educational administrative settings because they are the “prerogative of the powerful”. Within the socio-political time dimension teachers and administrators’ interests, responsibilities and time perspectives become separated. Hargreaves discusses the passage of time in the classroom as perceived differently by teachers to that of administrators. Teachers perceive time in the classroom as hectic and polychronic, whereas in contrast, administrators see it as slower. In their position teachers frequently have to deal with multiple change and interpret the reform or change as “too ambitious” and “unrealistic” which creates a “curious and ominous
paradox” between administrators and teachers. The faster and more “unrealistic” the timeline is perceived to be, the more likely teachers are to stretch out or delay implementation. This apparent delay panics administrators, who may be relying on the innovation or change to support their careers and promotional opportunities, resulting in them quickening the pace or tightening timelines further or imposing another innovation. This adds increased pressure and complexity to the teacher’s world inducing yet more tendencies to reduce the pace. Thus a vicious cycle with considerable antagonism between administrators and teachers is created.

Colonization
The final aspect Hargreaves (1994) in his discussion of time in schools was that of colonization. He distinguishes between “front regions” and “back regions” in teacher’s behaviour and activities. Front regions are where teachers are under the scrutiny of students, parents and/or administrators and are expected to demonstrate professional and productive behaviour. In contrast, back regions are characterised by informal relaxed behaviour (eg., friendly banter, “jokes”, “humming”, “chewing”, “cooperative decision making”, “elaborate griping”, “smoking”, “sloppy” sitting and standing postures and the use of “substandard speech” and/or “use of dialect”) that frequently appear to an outsider as unprofessional, immature or wasteful. This “back region time” can actually allow for relief of stress, can foster informal relations that build trust, solidarity and fellow-feeling and provide teachers with the opportunity for flexibility and control in juggling their “front region” activities (such as choosing to mark students’ work during lunch periods). Some administrators may attempt to colonize teachers “back region” time for their own administrative purposes perceiving this time as wasted or unproductive. Others, however, are protective of teachers’ down-time and demonstrate trust in their staffs’ discretion and professionalism.

Hargreaves’ (1994) discussion of the types of time in educational environments brings into focus concerns related to innovation, change and reform, teacher empowerment and control over their own time, and decision-making in relation to how time is utilised in schools. He indicated that the solution does not lie with stressing to administrators that they need to demonstrate increased sensitivity to
teachers’ concerns with time and change processes as the divide between their “lifeworlds” appears to be increasing. Rather, he emphasised the need to “explore solutions which question the strength of the divisions between administration and teaching”. He indicated that “it may be more helpful to give more responsibility and flexibility to teachers in the management and allocation of their time, and to offer them more control over what is to be developed within that time” (Hargreaves, 1994, p.114).

**Gender Factors**

Hawthorne emphasised the importance of perceiving teaching as a “gendered profession” and that “age, stage of career, life experiences and gender factors ... things that make up the total person, are known to affect responses and motivation to teaching” (Hawthorne, 1994, p.47). Females are increasingly dominating the teaching workforce in Western Australia, with the number of females increasing from well over half (66%) of the total workforce in 1990 to 70% in 1999. The number of males to females was relatively even in the secondary education situation with just over half (54%) of the secondary teaching force being female. The Age Profile Issue Paper produced by the Department of Education of Western Australia indicated, however, that the gap between the numbers of males to females in the younger age groups in the secondary situation suggests increasing feminisation of the workforce (2000a, p.29).

Huberman (1992) reported gender differences in levels of satisfaction with teaching in his study of teachers’ instructional mastery across various age groups. Likewise Ross (1994) reported female having higher levels of personal and total teaching efficacy than males. He pondered the rationale for this finding and deliberated that the cause may be related to the “cultural stereotype that teaching is a predominantly female occupation” (p.7). Increasing satisfaction levels in teaching is a concern for both teachers and researchers (McElrath, 1988; Ingvarson & Loughran, 1992; Jasman, 1992; Rinehart & Short, 1993; Dinham & Scott, 1997; Seddon, 1997). Huberman stated career satisfaction levels were distinctly higher for women than for men and for part time rather than full time teachers. This meant that those who had a
heavy investment in outside of work activities and interests such as childcare or avocation were happier with their teaching careers than those who were more heavily invested in work. Huberman indicated that the latter group were more frequently male, with the resultant finding that males gained less satisfaction from teaching (Huberman, 1992, p.132). Another gender difference was noted in the Scott (1997) study where female teachers were found to have transferred more complex models of teaching into their regular instructional repertoire than their male counterparts. Gender differences were also reported in teachers’ levels of self-efficacy in this study with the females demonstrating generally higher levels than the males (Scott, 1997).

Dinham (1993a, p.11) reported, however, that some of the female teachers in his study experienced stress due to conflicts with male superiors and/or perceived discrimination with regard to promotion. Some of the female teachers also reported difficulties, sexual suggestiveness and disrespect from male students, particularly from differing cultural backgrounds.

**Gender and Professional Development**

Heather-Jane Robertson (1992) examined gender in relation to teacher development. She posited that “gender-sensitive approaches” must be considered for effective professional development to be achieved. Robertson drew upon a range of research studies and identified a range of contextual issues that impacted on female teachers. Calabrese and Anderson (1986, in Robertson, 1992) found that female teachers experienced more stress due to their feelings of powerlessness, isolation and meaningless. Additionally, the male orientated curriculum, administration and school environment were contributing to female teachers’ “growing sense of disenfranchisement”. Professional frustration in female teachers was reported by Heilman and Kram (1983, in Robertson, 1992). They found that female teachers tended to expect colleagues to assign more responsibility to them for failure than success in shared undertakings. Sadker and Sadker (1986, in Robertson, 1992) found that females in their study reported a reticence to speak up in mixed gender meetings with less than a quarter (22%) expressing concern over interruptions by males in group meetings. Robertson stated that these factors may contribute to a “reluctance” to participate and engage in a “hostile environment” (pp.47-8). Similarly, Belenky,
Clinchy, Golberger and Taurule (1986) found there were power differentials in mixed gender meetings with the dominating power influence residing with the males and they therefore tended to override their female counterparts. Women in their study frequently felt disinclined to compete with males and some actually preferred to remain quiet in order to learn through listening.

Robertson (1992) reviewed Joyce and Showers’ (1995) classification of teachers’ activity index particularly in relation to participating in professional development programs. Joyce and Showers’ observation of participants in professional development led them to identify a range of “activity levels”. Teachers at the highest activity level were described as “gourmet omnivore[s]” due to their awareness of the “possibilities for growth”, identifying “high-probability events”, and working hard at “squeezing them for their growth potential” (Joyce & Showers, 1995, p.178). Approximately ten percent of teachers demonstrated this high activity level and another 10 percent who were “somewhat less active” (p.176). The largest group were the “passive consumer[s]” with approximately seventy percent of teachers resembling this group (p.178). These teachers were displaying more or less amiable conformity to the environment. Their level of activity largely depended on those they were with. If they were with other passive consumers they were “relatively inactive”; whereas, their activity level would increase if they found themselves with more active consumers or gourmet omnivores. The third category was the “reticent consumer” also representing approximately ten percent of the participants studied (p.179). While these “reticent consumer(s)” displayed a relatively amiable view of the world, although rather unenterprising, they “expend energy”… “actually pushing away opportunities for growth”. They also have “developed an orientation of reluctance to interact positively with their cultural environment” (p.179). Joyce and Showers’ identified these activity levels, not to label or pigeonhole teachers, rather to explain the range of behaviours frequently observed in whole-school professional development situations. They proceeded to examine a number of developmental theories, for example, Harvey, Hunt and Schroder’s “conceptual systems theory” and Maslow’s theory of “self-concept” in order to explain the levels of activity and states of growth displayed by teachers (both theories referenced in Joyce & Showers, 1995, p.180).
Robertson argued, however, this classification may not be appropriate to apply across genders. She felt the “activity index” may be negatively affected by factors outside of the classroom or teaching situation. For example, female teachers and administrators “continue to bear disproportionate responsibility for home and childcare” and, as the median age of female teachers increased to 40 years, they were more frequently affected by the responsibility of caring for ageing parents. To be perceived as “uninterested rather than overextended” was grossly “unfair”. The Report on the Status of Women from the Georgia Institute of Technology endorsed this issue of increased responsibilities stating that “many of them (female members of the faculty staff) have the dual responsibilities for taking care of both young children and aging family members” (Georgia Tech InGEAR management team, 1998), p.33).

Peer coaching relationships were discussed in terms of the power structures and communication between males and females for the purposes of discussing classroom practices. It was recommended that gender-sensitivity be displayed in establishing professional development programs, particularly in the partnering of peers. The suggestion was made that women be provided with the prerogative to pair up with another woman (if she prefers), due to differences in communication styles and power relationships (Robertson, 1992, pp.57-58).

**Women and Career Aspirations**

The number of women occupying promotional positions in Western Australia has increased over the past decade. Nonetheless, there are still fewer females in leadership roles as compared with their male counterparts with just over a third (34%) of the promotional workforce composed of women (Education Department of Western Australia, 2000a, p.16).

Robertson cited Biklen’s study (1986, in Robertson, 1992), which described female teachers as lacking career commitment, typically classroom focused and expressing disinterest in vertical mobility. Bloot and Browne (1996, p.83) reporting from a number of previous studies, including Acker (1983), Ball (1987) Sampson (1986)
and Whitcombe (1980), indicated that this perception of women lacking career focus was "sexist and an oversimplification of a complex situation". They proposed that women may “choose not to accommodate the male model of leadership” as an “act of resistance rather than a passive acceptance of the status quo” (Bloom & Browne, 1996, p.84). Women teachers’ lack of inclination to progress to Head of Department level was a concern to these previously cited authors, as these positions represented the initial step on the promotional ladder. Additionally, acceptance for women pursuing careers if the pursuit competes with family commitments has not increased at the same rate as acceptance of women in the workforce. Conner provided a slightly different perspective that the ...

belief concerning women’s lack of desire for power may not be related to their lack of a desire to obtain power, but how power is perceived, that is quite different from men .... Women use power to empower others. They base this on the notion that power is not finite but rather expands as it is shared (Conner, 1992, in (Growe & Montgomery, 2002), p.2).

Interestingly, Robertson noted that the all consuming nature of a professional career, in terms of time required to get the job done at the expense of everything else, is impacting on men as well as women, particularly as men increase their participation in family life. She did note that men were receiving more sympathy in the workplace than their female counterparts if they express concern about neglecting home and family in favour of their career.

Leadership styles are also reported as differing between female and male administrators. Overviews of the research on American women administrators (1987, in Robertson, 1992) found that in general, female administrators tended to put relationships with people first, motivated others more effectively and received increased community support. They also tended to effect increased productivity, levels of morale and sense of community with colleagues. They appeared to have a more participatory style of leadership producing a more collaborative culture, tended to be focused on the whole child. Schools with female administrators tended to exhibit higher academic achievement (Growe & Montgomery, 2002). Similarly,
Carol Shakeshaft (1986, in Robertson, 1992) stated that feminine values benefit students.

Conversely, Kingsley referred to Angus’ description of “appropriate” management behaviour as “stereotypically masculine, technical traits” and indicated that women who assume administrative roles “unconsciously” buried the perceived feminine qualities of “compassion, empathy, gentleness and ... collaboration” (1994, in Kingsley, 1996, p.223). Blook and Browne (1996, p.83) also perceived a gender difference in styles of leadership in their examination of the lack of representation of females in Head of Department positions. They reported masculine styles as characterised by “aggressive competitive behaviours, emphasis on control rather than collaboration and negotiation, and the pursuit of completions rather than shared problem-solving” (p.83). Growse and Montgomery outlined two forms of leadership style stating that the major difference was that female leadership emphasised “relationships, sharing and process” while male forms focused on “completing tasks, achieving goals, hoarding of information, and winning” (Growse & Montgomery, 2002), p. 3). Kingsley also reported Martin’s findings quoted in Angus’ work that “a sample of women seeking to become administrators had (culturally) higher masculinity scores” (Kingsley, 1996, p.223). Kempner offered the perspective of leadership as “one based on power, control and domination, as reflected in the militaristic and athletic metaphors used by many men” (Kempner cited in Angus, 1994, in Kingsley, 1996). The issue of style may be pertinent to Robertson’s reflections that women reject promotion if they are required to exhibit these masculine behaviours. However, Growse and Montgomery indicated a lack of female role models and mentors, ...

the lack of support from the school board, the attitude of a few women administrators that, ‘we don’t hire the competition,’ the isolation associated with minority status, sex-typed expectations, and gender bias, the enormous amount of stress that is part of the job, and the lonely at the top feelings are barriers women face (Growse & Montgomery, 2002, p.4).
Self-Efficacy

In keeping with a Social Cognitive Learning Theory (Bandura, 1986) foundation logic dictates that transfer of skills and strategies into regular classroom practice would also be affected by an individual’s level of self-efficacy. Self-efficacy relates to our sense of competency in a given area. If we have previously experienced success in learning our self-efficacy will correspondingly rise, providing further motivation to attempt a more difficult learning task. The goals we set are indicative of our level of self-efficacy and become the method of evaluating our performance. If a transfer goal is set and achieved it would appear that self-efficacy would correspondingly rise. This may encourage the individual to set further transfer goals and work harder and persist in the task until success has been achieved (Woolfolk, 1993).

Teaching has two forms of efficacy, first, teacher efficacy - which is the belief that teachers in general can be a powerful influence on students (Ross, 1994). And second, self-efficacy - where the individual teacher can visualise success and execute a desired outcome and personally have an effect on his/her students (Greenwood, Olejnik, & Parkay, 1990; Pajares & Kranzler, 1995). By developing a repertoire of strategies ensuring instructional effectiveness teachers are investing in self-efficacy where they feel competent to perform these strategies, as well as satisfied that by doing so they are involved in effective or quality teaching that will have a positive affect on students. According to Ashton and Webb “a teacher’s sense of self-efficacy appears to be one of the few personal characteristics of teachers that is correlated with student achievement” (Ashton & Webb, 1986, in Woolfolk, 1993, p.341). That correlation reports that teachers displaying high self-efficacy will work harder and be more persistent with a difficult class partly because they believe in themselves and their students. Self-efficacy will continue to rise when success with students is experienced.

Teacher efficacy, self-concept and attitude to new strategies may also have an effect on transfer. Guskey (1987) found a correlation between teachers who maintained a positive attitude towards teaching in general and expressed a high level of personal efficacy and confidence regarding their own teaching ability and their receptiveness.
to the implementation of new instructional practices. He suggested that if these teachers were as effective as they believed themselves to be it may have followed that they may have been more confident to try new methods than those colleagues whose perceived efficacy and self-concept was poor. Greenwood, Olejnik and Parkay’s (1990) results complement those of Guskey’s (1987). In their study, they surveyed K-12 teachers regarding the relationships between four teacher efficacy belief patterns and teachers’ feelings of stress, locus of control, gender, race/ethnic origin, education, age, grade level and teaching experience. They reported that overall, teachers’ experienced less stress when they were confident in their own ability and held the belief that teachers in general, have the capacity to make a difference to their students. School culture also “heavily influences” teachers’ perceptions of self and teacher efficacy (McLaughlin & Talbert, 1993 in Moffett, 2000). These findings have implications for professional development, as well as, for teacher preparation programs. We know that student teachers build a satisfactory confidence level and a positive perception of the teaching profession while in preservice teacher education. The fact that effective professional development programs can promote and support the continuation of self-efficacy is significant in light of the perception expressed by Martin (1989) that teacher efficacy is linked with student achievement. Therefore effective professional development can indeed result in an increase in student achievement through the positive impact on the teacher’s self-efficacy.

**Self-Reflection**

Considerable emphasis exists in the literature on the value and necessity for teachers to be more reflective of their classroom practices and cultivating the characteristics of a “reflective practitioner” (Zeichner, 1990; Gore & Zeichner, 1991; 1991; Oberg & Underwood, 1992; Smyth, 1993; 1993; Butler, 1996; Garmston & Wellman, 1998; Schwahn & Spady, 1998; Costa & Kallik, 2000; Goldberg & Pesko, 2000; Middleton, 2000; Sherin, 2000).

Actively maintaining self-reflection procedures encourages teachers to monitor their classroom practices for continued improvement in the development of new strategies,
continued refinement of instructional practices and personal evaluation of curriculum changes and innovations Norman, 2001; Loucks-Horsley, 1996; Cambone, 1994). Reflection enables the teacher to identify successful aspects of the lesson, as well as, avenues for improvement. Rogers (1987) investigated the merits of videotaping procedures for greater objectivity, in aiding implementation of new strategies in the classroom. She found the use of collaborative and self-reflective processes produced a high level of motivation on the part of the teachers involved, but surprisingly, these procedures rather than being viewed as an evaluation tool, served to increase the self-concept and pride of those involved and acted as strong positive reinforcement to continue with the new strategies. Goldenberg and Gallimore (1991, pp.71-72) endorsed Roger’s perception that videotaping provides unambiguous insight into practices and assisted self-reflection. Following this similar theme, Sherin (2000) facilitated teachers’ reflection on teaching practices by teachers engagement in a “videoclub”, whereby they videoed their lessons and reflected together on the interactions and practices. She found that reflection using video technology allowed teachers “time to respond”, to examine what was occurring without being constrained by the “demands of instruction”, and to focus on what students were thinking and talking about rather than becoming distracted by management issues. The “videoclub” had the added benefit of bringing teachers together, breaking down the isolation of teaching and provided insights into other ways of teaching. Sherin stressed that club members were conscious that they were there to “investigate not to evaluate teaching”. She reported that because of the “videoclub” reflection activities “teachers found themselves better equipped to interpret students’ ideas that came up in class and more comfortable making pedagogical decisions on the basis of students’ comments” and the process was an “exciting means to renew their interest in teaching” (Sherin, 2000, pp.36-38).

Self-reflection appears to be closely linked with positive self-efficacy, investigated by Volkman and her associates (1992) in a study where preservice teachers were involved in a field-based reflective teaching practice. These student teachers were surveyed before and after the practice and kept a journal throughout the period. They were assigned a co-operating teacher in the school and a graduate teaching assistant (GTA). The GTA’s role was to conference extensively with the student following
observed lessons and to facilitate networking twice a week with the student teachers in the treatment group and in discussion sessions incorporating self-reflective practices. Volkman found that the “treatment” student teachers appeared to become more “self-confident and self-assured”, reported feeling more “confident” and “found themselves thinking more” (p.6). This supported previous research which suggested that teachers become more efficacious and better reflectors of their own teaching practices when they have participated in such a program.

**Self-efficacy, Metacognition, Cognition and Knowledge in Learning**

When teachers are faced with new teaching strategies or curriculum changes it can be likened to the analogy of a student faced with an instructional task. Robert Marzano (2000) examined the interactions of knowledge, cognitive systems, metacognitive systems and “self-systems” when students are faced with a new task. From his work with 5,000 students he proposed a model (refer to Figure 3.3) that indicated his perception of the links and interactions between these systems when a student undertakes a new task.

In Marzano’s example, a student is faced with a task defined as “an opportunity to change whatever we are doing or attending to” (p.85). In deciding whether or not to undertake the task the student is engaging the self, metacognitive, cognitive and knowledge systems. The self-system is the prime determiner as to whether an individual is motivated to begin a task. It involves a “network of interrelated beliefs” and goals. His description draws similarities between Bandura’s (1986; Pajares & Kramzler, 1995) description of self-efficacy and self-belief. Figure 3.3 illustrates that if an individual believes that the task is worthwhile or important and is likely to be successful, then a positive affect is generated which motivates the person to undertake the task. Conversely, if the task is perceived as irrelevant or the chances of success are low then the motivation factor is also low with a negative effect generated. This endorsed Joyce and Showers (Joyce & Showers, 1995; Joyce, Weil, & Calhoun, 2000) components of effective training where teachers are provided with the theoretical underpinnings of the models in order to understand the expected advantages for their students, thereby providing them with the initial motivation to
attempt these strategies. Additionally, it aligns with Bandura’s motivational and reinforcement factors that affect performance.

In his model (refer to Figure 3.3), Marzano includes emotion as having an effect on the self-system. He indicated that the self-system determines the emotion related to knowledge and skill in long-term memory. The metacognitive system is engaged regardless of whether the task is perceived to be important or of low relevance. It is involved in devising strategies, making plans, time lines, resources, and the interactions between these factors. The metacognitive system interacts constantly with the cognitive system throughout the task. The cognitive system is responsible for possessing the information that would be required to complete the task, for example, devising the steps in the problem-solving component required. Knowledge relates to what the student already understands about the task.

As may be expected all four systems are important for effective learning to take place. A breakdown in any of the systems would effect the learning process; for example, if the individual has no personal goals in the self-system that are related to the task the student may become involved in a compensatory activity and/or if the student has ineffective or deficient goal monitoring processes within the metacognitive system it would adversely affect the completion of the task.

Marzano’s model provides “a filter” to review research related to teaching and learning demonstrating the links between self-system, or what can also be thought of as self-efficacy, metacognitive processes, cognitive processes and knowledge (both prior and newly presented). It also endorses Joyce and Showers’ research into transfer of training and Bandura’s work on the Social Cognitive Theory in linking aspects of self-efficacy, self-belief, motivation, and cognitive and metacognitive structures in learning and transferring new skills.

**Metacognition: Reflection on Thinking Processes**

With a focus on thinking and learning processes, constructivist approaches such as problem-based inquiry (Arends, 1998; 2000), models of teaching (Joyce, Weil, & Calhoun, 2000) and complex cooperative learning strategies (Sharan, 1980; Slavin,
Sharan, Hertz-Lazarowitz, Webb, & Schmuck, 1985; Slavin, 1995; Aronson, 1997) result in an increased awareness of metacognitive activity on the part of the teacher. Metacognition or “reflective intelligence”, a term coined by Perkins (1995), is of particular importance when adopting new and complex strategies (by either the teacher and/or the students) as these skills require the “breaking [of] set ways, unseating old assumptions, and exploring new ones” (p.113). Perkins identifies more to reflective intelligence though. He indicates there are three aspects: “Strategies for memory, problem solving, and so forth; Mental management (mental self-monitoring and management, sometimes called metacognition); [and] Positive attitudes toward investing mental effort, systematicity, imagination” (p.115). This is particularly valuable to teachers, in that, by being aware and conscious of what they themselves are really thinking and trying to achieve, teachers will be able to make their objectives explicit to their students. Beyer (1987; 1988) and Volkman and associates (1992) support Shulman’s (in Beyer, 1988) views that a lot of teachers need to reflect more on their own teaching, becoming consciously aware of “what they are really doing, rather than presuming that what they are doing, is what students perceive they are doing”. Receiving feedback from students (and peers) can “sharpen an instructor’s teaching abilities … (and) thinking” (Beyer, 1988, pp.5-6).

Reflection – The Debate

While much of the literature propounds the advantages of self-reflection not all researchers perceive current emphasis on reflective practices as beneficial. Smyth argues that the interest in reflective practices during the 1970s and 80s emerged as a counter to technicist competency-based approaches and cognitivist views of the teacher as information processor in the USA. He felt that this coincided with an emphasis on competitive individualism put forward by this “New Right”. This was resulting from “falling rates of profit and declining capital accumulation” again perpetuated by the questionable view that a direct link or relationship exists between education and the economy (Smyth, 1992, p.278).
Figure 3.3: Marzano’s model showing interaction among knowledge, cognitive system, metacognitive system, and self-system (2000)

Zeichner (1990; 1993) also examined the fashionableness of the term “reflection” and discussed the need to use the term carefully. He stated that it has become popular for education preparation programs to promote reflective techniques in their graduates. However, he cautions that there is a need for establishing priorities for this reflection which should emerge from “reasoned educational and social philosophy”
(Zeichner, 1990, p.56). In other words, graduates should have definitive guidelines relating to what they should be reflecting on and why. He stressed the need for the novice teacher to have developed an explicit philosophy purporting to their own teaching practices. Zeichner and Liston (1990, in Zeichner, 1990), building on the work of Klierbard (1986, in Zeichner, 1990), identified four traditions or paradigms of reform in the 20th Century in American teacher education. Further examination of this work by Zeichner and Tabachnick (1991) resulted in an extension of the paradigms by developing four varieties of reflective practice.

1. an Academic Tradition – which places the emphasis on content knowledge and therefore reflection techniques revolve around the representation and translation of subject matter knowledge in order to promote students’ understanding.

2. a Social Efficiency version – which places the emphasis on the appropriate application of particular teaching strategies suggested through a knowledge base external to one being studied eg., understanding the research behind the theory.

3. a Developmentalist version – which emphasises and prioritises teaching practices sensitive to student interests, thinking and patterns of developmental growth.

4. a Social Reconstructionist version – which stresses reflection about the institutional, social, and political context of schooling and the assessment of classroom actions for their ability to contribute to greater equality, social justice, and humane conditions in schooling and society.

(Zeichner, 1990)

Smyth made an interesting observation relating to Tabachnick and Zeichner’s traditions of reflective practice in stating that he felt none of the versions are “politically neutral”. He stated that each one has “its own implicit set of priorities ...
about the relationship of schooling to society ‘that emerge out of particular historical traditions and social philosophies’”. Further, there may be a problem “in the extent to which the various approaches are prepared to be reflective of their own agendas”. He reiterated “Tabachnick and Zeichner’s claim that ‘generic’ approaches” of reflection “‘lose their heuristic value ... after a certain point and begin to hide more than they reveal’ because of their inability to clearly articulate the criteria upon which they are based” (Smyth, 1992, p.281).

When investigating these versions of reflective practice, Zeichner stated that adopting just one was insufficient for “providing a moral basis for teaching” but rather “good teaching” required attention to aspects of all four traditions (Zeichner, 1990, pp.56-57). His fourth tradition mirrored his ongoing concerns relating to reconstructing society in a more positive manner. He feels that the foundations of this work should be laid in the young and still forming minds of our youth, and reflected in the educators of those impressionable young minds and personalities. This view coincided with those of John Dewey, Herbert Thelen (Arends, 1998; 2000), and Byron Massialas and Benjamin Cox (1966, in Joyce, Weil, & Calhoun, 2000). This appeared to be an insightful assessment of the paradigms and traditions. It is also in accord with the theory and research underpinning many of the constructivist approaches such as the Models of Teaching, and Problem-based Inquiry. If key aspects of all four traditions are not accommodated when implementing the constructivist strategies then the teacher’s attempt would be less than successful in achieving the educational outcomes initially anticipated (Norman, 2001).

Reflection is vital in improving teaching and learning processes by allowing teachers to construct meaning from their work. Costa and Kallik (2000) found that a whole staff approach to reflection assisted teachers to understand that teaching, faculty activities, and school improvement efforts are related and not episodic events. It also allowed them to perceive “events as steps in a spiral of planning, experimenting, gathering evidence, and revisiting and modifying their work experiences” (p.60). They reported on a school that utilised the introductory portion of their bimonthly faculty meetings for reflection on how their teaching relates to the school’s goals.
They would study students’ work, the results of action-research projects or examine a “teacher’s reflections on how her practices have strengthened student performance”. They state that reflection is required to maximise the meaning from experiences and provides an opportunity for:

- amplifying the meaning of one’s work through the insights of others;
- applying meaning beyond the situation in which it was learned;
- making a commitment to modifications, plans, and experimentation; and
- documenting learning and providing a rich base of shared knowledge.

(Costa & Kallik, 2000, p.60)

Perkins (1995) synthesised his perception that you can learn to be more intelligent stating ... 

_Over the years, through instruction, watching others, coping with problems, and in innumerable other ways, people develop realm knowledge in realms where it’s needed, accumulating specific and somewhat generalized action patterns, beliefs and feelings, and concepts (the ABCs) and thus end up knowing their way around various realms more or less well – acquiring experiential intelligence._ (1995, p.264)

He also discusses an interesting concept of possessing expertise in learning. He refers to the work of Carl Bereiter and Marlene Scardamalia (Surpassing Ourselves, 1993) whereby categories of learners were explored. Bereiter and Scardamalia (1993) refer to “expertlike novices” and “expert learners” and contrast these with “nonexpert learners”. The main difference between the first two categories was a differentiation of what is important as you commence learning about a particular subject. “Expert learners” recognise that it is difficult to discern what is crucial, whereas “nonexpert learners” make assumptions (sometimes flawed) and subjective judgements about points of importance. Similarly expert learner realise they may have a simplistic understanding and discern complications or exceptions. Nonexpert learners frequently develop narrow and uncomplicated constructs and hold to these regardless of how well these fit with further emerging evidence. These characteristics would influence the learners’ ability and capacity to reflect on new learning and constructing meaning from their experiences.
Costa and Kallik (2000, p.61) also recommend inviting students to participate in the reflective process as they can provide “insights into the worthiness of the changes that the school is instituting and assist [students to] identify how the changes benefit them”. It also enables students to perceive the importance of metacognition and reflection in their own learning experience.

**Chapter Summary**

This chapter outlines some of the significant factors that affect teachers’ capacity to develop professionally. The literature on teachers’ career phases demonstrated that teachers’ perspectives and needs would vary throughout their career. School cultures were found to affect teachers’ behaviours, and to an extent beliefs, and thereby have an influence on professional development. Additionally, literature related to teachers’ perception of time and its classifications, teachers’ gender as it pertains to professional development, promotion and leadership, self-efficacy and self-reflection and the affect on ongoing learning was explored. Although categorising these factors separately under neat headings may be easier, in reality, many of them overlap. For example, time is needed for teachers to adequately reflect on their teaching practices, and yet a school’s culture may or may not support reflection on skill development.

The following literature chapter explores the rapid and somewhat relentless technological developments and integration into the educational situation.
CHAPTER 4
LITERATURE REVIEW:
TECHNOLOGICAL CHANGE IN EDUCATION

Widespread use of information technology will markedly raise educational expectations. Today, we believe that all educated people should read and write well, but this expectation is only about 200 years old .... Information technology will influence society and education as much as print technology has, and the effect won’t take hundreds of years to appear. Already, information technology is transforming the workplace. Within one generation – 30 years – our ideas of what every educated person should be able to do will change drastically, too.


Figure 4.1: Conceptual Framework – Technological change in education component.

The impact of technology on western society has been considerable and has necessitated swift response from educational environments in order to maintain competitiveness in the workplace. Technology is a multifaceted concept and the varying aspects are briefly examined in this chapter. For example, technology perceived as a tool, as an application of scientific developments, as educational practices, as information communication technologies, and as an educational “resource” and “context”. Educational trends and development in technology are
tracked particularly in relation to software, infrastructure, patterns of use, and equity issues. Additionally, professional development in technology is explored. The positive impact technology is having on constructivist instructional practice is briefly outlined. Finally, technology is discussed as redefining the criteria of educated individuals.

Technology and Societal Change
The printing press, mass production, mechanisation and industrialisation made printed material possible. Prior to that, the general population were not expected to be literate. With the advent of those innovations, the expectation of literacy has increased to the point where the term “educated” indicates people can read and write proficiently. One proposition is that “information technology will influence society and education as much as print technology has” but will not take hundreds of years for the effect to become evident (Walker, 1999, p.18). As Dolence and Norris (1995, p.2) stated ...

*Society is undergoing a fundamental transformation from the Industrial Age to the Information Age. This is a global phenomenon with very significant local implications. All people, organizations, societies, and nations are affected, although not all at the same pace or to the same degree. Those who realign their practices most effectively to Information Age standards will reap substantial benefits. Those who do not will be replaced or diminished by more nimble competitors.*

The appeal of technology has been demonstrated since the 1980s when billions of dollars were invested by industry in information technology. This was primarily with the view to transform white-collar work practices, despite an absence of verifiable indicators of return on investment, such as, increased productivity, efficiency, or profits, and yet expenditure in information technologies continued (Landauer, 1997). Information technology has been altering the rules of commerce as demonstrated by the huge jumps observed in 1999 in stock market value of Internet companies such as Netscape and Yahoo, which were valued in billions of dollars, yet neither have
significant assets. The divergence from traditional norms related to stock market companies has been curtailed primarily due to the crash of the dot com company phenomenon in 2000. With the dramatic alterations of business perspective related to technology that has occurred in recent years, expectations of employers have likewise altered with respect to the expertise of their potential employees, namely, the graduates of the educational system. In order to keep abreast of industry demands the educational systems have had to examine both teaching practices and facilities.

Technology

In this section three major aspects are examined, what technology comprises, technology in education, particularly, the rapid development of technology, and the impact of technology on teachers and teaching practices within the educational system. Due to the vastness of the subject area this section provides a brief overview of the significant aspects of technology and education and the nature of technological change within the educational situation.

One leading theorist and commentator on technology, Ursula Franklin (1990) indicated that this area has become so complex that it is becoming difficult to define. She stated …

... it (technology) includes activities as well as a body of knowledge, structures as well as the act of structuring. Our language itself is poorly suited to describe the complexity of technological interactions. The interconnectedness of many of those processes, the fact that they are so interrelated in such a complex manner, defies our normal push-me-pull-you, cause-and-consequence metaphors. How does one speak about something that is both fish and water, means as well as end? (Franklin, 1990, pp.14-15).

Lankshear and Snyder with Green (2000) explored technology as applied to educational settings and made a series of recommendations to the Department of Education, Training and Youth Affairs (DETYA - now DEST) and state education departments regarding literacy and technology in and for education. In attempting to identify the various components of technology and “unravel layers of meaning that
surround ‘technology’”, Lankshear and associates examined the concepts of technology as “tools”, as applied science, as education, as practice, as digital communication and information technologies, and as a “resource” and a “context” in and for education (Lankshear et al., 2000, pp.23-47).

**Tools and Machinery**

One of the most prevalent views of technology is that it relates to machinery and its use. Within this view, technology provides a means to an end with very little difference to the end result. It is frequently utilised due to the perception that it will increase efficiencies and decrease costs. This is a characteristic perception of initial adopters or low end users of technology in both education and business. This conceptualisation provides a foundation for further development.

**Applied Scientific Knowledge**

Gendron defined technology as

> any systematised practical knowledge, based on experimentation and/or scientific theory, which enhances the capacity of society to produce goods and services, and which is embodied in productive skills, organisation, or machinery (1977, in Rothschild, 1983, p.79).

The production of complex computer equipment, related software and hardware has resulted from the application of scientific and technical knowledge. Within this conceptual framework technology is the demonstration of scientific principles to produce things or alter structures or organisation of things to increase efficiency or improve the world of human living (Medway, 1993). Technology in this parameter emerges as a “problem-solving activity” or “design” process.

**Education**

Three main levels are identified in technology as education. These three levels represent a gradual shift from a simplistic perception to a more complex, discerning one. First, the initial level of learning how to use technology as a tool in order to obtain basic skills is frequently referred to as computer or information technology literacy. Second, “situated technology” involves “learning how, when and why
humans engage the process of technology and with what consequences or effects” within particular “cultural, social, environmental contexts” (Digital Rhetorics, 1997, in Lankshear, Snyder, & Green, 2000). The third level of technology as education is where the student learns to apply technological skills and knowledge in the real world. The technology is perceived less as a tool, and more of a way of thinking and acting in the world.

**Practice**
This aspect links technology and technological practices with organisational culture. Franklin perceived technology as including ideas and practices, ways of thinking and ways of doing things in addition to the tools that are used to do the work itself. She indicated that technology as practice “shows us the deep cultural link of technology” to the organisation of work and people (Franklin, 1990).

Technology as practice incorporates the concepts of organisations and the social structures of the workplace, so too it becomes involved with social values and is perceived as a medium rather than a tool. For those who have progressed to this perception it takes on the characteristics of language. Medway (1993, p.7) referred to “technology of thinking” as language, with Idhe extending this postulate and describing technology as “texture” and “background” in how we interpret the world. He stated we live in a “technological cocoon” where technology is transformative in the social and cultural effects and consequences, and acts as a filter in how we come to understand the world (Ihde, 1990).

**Technology and Educational Change**
Technology has also made a considerable impact on education. Barbara Means (2000) tracked the adoption of technology through the 1980s to the present and attempted to propose a vision of the 21st Century specifically in education.

**Software**
Most software initially developed for educational purposes were based on behavioural learning theory (Skinner, 1979 in Biehler & Snowman, 1993) and
primarily constituted drill and practice modes for skill development with inbuilt systems for tracking individual student progress (Biehler & Snowman, 1993; Means, 2000). During the 1970 to early ‘80s computer classes were “designed to teach about computers rather than to teach with them” (Means, 2000, p.187). During the mid to late 1980s word processing packages comparable to business applications (in that they had similar features and functions) emerged and were utilised by students for general-purpose school-work. Although word processing has remained relevant to the present, students are becoming more involved in building Web pages and multimedia presentations to show how they researched a topic or solved a problem. Educational software in the form of CD-ROM-based references and enrichment materials are currently in common usage. Programs that are refinements of initial drill-and-practice programs are still prevalent but are more game-like, for practising basic skills.

Small innovative educational software companies have folded or been bought out by large conglomerates resulting in an increase in production and sales of “edutainment” to the parental rather than the school market (Means, 2000, p.197). Network technologies are facilitating collaborative efforts of students in assignment work both within and outside the school.

**Infrastructure**

The number of computers in American schools increased dramatically during the 1980s. Less than one fifth (18%) of American public schools had a single computer designated for instructional use in 1981. By 1983 the estimated number of computers had risen to 50,000 and by 1990 the estimate was 2.6 million (Becker, 1990, in Means, 2000, p.187). The focus for numbers of computers per school shifted to a student-computer ratio during the ‘80s in the U.S.A.

This shift in focus from numbers of computers to a student-computer ratio has been mirrored recently in Western Australian public education in the *Plan for Government School Education 1998-2000* report. This report outlined the State Government’s initiative to invest “$80 million funding over the next four years … to increase the integration of technology into teaching and learning programs in schools” (Education...
Department of Western Australia, 2000c, p.1). Schools were to receive the funding to increase the ratio of computers-students to a minimum of 1:5 for secondary and 1:10 for primary students by 2002. Computers were to be “no more than four years old or functionally equivalent” (Education Department of Western Australia, 2000b, p.1). In December, 2001 Western Australian schools received notification that the Minister for Education had agreed to the removal of the requirement to meet the computer-to-student ratios specified under the Plan for Government School Education 1998-2000 report. This decision was in response to concerns about Information Communication Technologies identified by the Ministerial Task Force (2001). Education situations continue to lag behind business and entertainment sectors in capitalising on new technologies. Nonetheless, the 1990s saw a phenomenal growth in technology and increase in access in schools.

The growth in technology has also resulted in a change in how educators measure technological access and equity with an increasing expectation of high-quality equipment and easy, efficient access for both teachers and students in all schools. Even with this expectation, in most high school situations, access remains largely in the provision of two or three computer laboratories (with 20-30 machines in each laboratory), which classes are able to access for limited periods. Adding to this limitation is the issue of equipment obsolescence in most schools.

**Patterns of Use**

Means (2000) reviewing national surveys, reported that in the early ’80s computers were used mainly to:

- teach students about computers (i.e. computer literacy classes);
- teach programming; and
- rote learning through drill-and-practice programs.

(Means, 2000, p.188)

During this period, teachers used computers for enrichment activities and variety but rarely for the teaching of core academic subjects. This endorsed the view that technology was largely marginalised, not an integral part of schooling. In the mid 1980s, using computers as tools increased, with fewer classes teaching about
computers. Education started to shift towards students engaging in authentic tasks with equipment that was similar or comparable to the workplace. Schools initiated the use of word processing packages to support student writing. This shift also impacted on the core curriculum areas where technology was incorporated in terms of the applications that supported student activities, with teachers designing and orchestrating the activities.

Adopting general tools for instructional purposes received a dramatic boost with the advent of the World Wide Web in 1990 and the related search engines that enabled students and teachers to locate information from a much wider source. Access was initially slow and inefficient; however, by 1997 the proportion of networked classrooms in the U.S. had risen to twenty seven percent. It was estimated that by the autumn of 1999 eighty percent of classrooms would have been connected to the Internet. Although this technology has huge potential, in the 1990s the Web-based educational usage was in providing sites where Web page developers could tell their stories or post information. Students could then search and view these pages much like instructional television and reference libraries (Means, 2000, pp.191-192).

Increasing the collaborative and social nature of learning utilising the interactive capabilities of computer networks has also emerged as an advantage of technology. This has already started to impact on the patterns of use with some schools becoming involved in challenging research collaborations with research facilities and individual scientists all over the planet. One such example was the Global Learning and Observations to Benefit the Environment (GLOBE) program. GLOBE sought to promote “elementary” (primary) and secondary students’ learning of science by involving them in real-life, “authentic” scientific investigations. Students’ data were combined with other schools via the Web where students and scientists could access it. The educational advantage of utilising these technological approaches was demonstrated by these students’ increased academic performance in comparison to their peers who were not involved (Ibid pp.192-193). Similarly in the JASON project, students and teachers were connected through “telepresence” with scientists across the planet, while they were “exploring coral reefs, rain forests, or other interesting ecologies” (Ibid p.193). While these examples of innovative uses of
technology bode well for students’ learning, Means states “although such examples of technology-enhanced, constructivist-orientated learning activities are prominent in the education literature, they do not represent mainstream educational practice in the United States today” (Ibid, p.194).

Means indicated that the major and most crucial difference between the patterns of use in the 80s has shifted from the “dominant” “computer-assisted instruction model” to “the nature of the instructional activity” (Ibid p.195). The collaborative, real research, innovative activities outlined previously demonstrate the shift of emphasis to the activity, which is more important than the technology and is initiated and orchestrated by the teacher rather than a software program or system. School reformers have stressed the importance of this shift in the pattern of use of technology to involving students in authentic, challenging tasks with equipment of professional capabilities and expanding the intellectual and social resources available through collaboration. Teachers are more frequently designing technology-supported classroom activities, endorsing Fogarty’s conceptualisation of “teachers as architects of intellect” (1999) designing and creating cognitively stimulating activities for their students using the tools available to them. This also demonstrates the shift from “initial adopters” mindset and practices to technology “as a way of thinking and doing” within a particular social setting.

**Digital Communication and Information**

Information systems and educational culture are undergoing a transformation associated with digitally generated materials and environments. Even in the late 80s Brand claimed that there was a convergence of areas of activity that had been previously separate and discrete (Brand, 1987), with Walker and Lewis pursuing this proposal in stating that the worlds of publishing, communications and computing were becoming seamless, as most information becomes digital in form (Walker & Lewis, 1998). An intriguing outcome of increasing digitisation was identified by Negroponte, and has been dubbed the “Negroponte switch”, whereby communications that once were broadcast such as radio and television, have increasingly become wired, while wired communications such as telephone and computer networks have moved to broadcast media (Negroponte, 1995). This
illustrates the rapid and convoluted nature of change and raises a question regarding the survival of the traditional book as a contemporary communication form. Some propose that books may be considered “sunset technology” and education should concentrate on computer generated reading and writing text on screen (Spender, 1995). Examples of computer generated reading materials and on screen text cited as proof are the Internet, CD ROM information, online journals and database information services.

Clark (1983) asserted that media is not an influence on learning but is merely a form of delivery. He used the analogy of a grocery truck having no effect on nutrition. In his perception media are “vehicles that deliver instruction but do not influence student achievement any more than the truck that delivers our groceries causes changes in our nutrition” (p.26). Pursuing the analogy he reflected … “basically, the choice of vehicle might influence the cost or extent of distributing instruction, but only the content of the vehicle can influence achievement”. He drew a clear distinction between “delivery” and “instructional” technologies, in that, delivery technologies provide access to instructional strategies in an efficient and productive manner, whereas instructional technologies make it “possible to influence student achievement” (Clark, 1994, p.26). Other researchers agree with this perspective that various technological applications are a means of introducing efficiencies, rather than a phenomenon that has the potential to change content and curriculum, in other words, reform curriculum (Carter, 1996).

Technology and the Constructivist Approach
Some take a broad perspective related to technology and education. Jonassen, Campbell and Davidson (1994) preferred a more holistic approach to learning and technology in line with a constructivist perspective. They reject Clark’s (1994) distinction between “delivery” and “instructional technologies” as too narrow and rather than focusing on instruction or technology, favour focusing on the aspects that influence the learning experience including students, teachers, instructional designers, the environment and social context. They interpret the decision of what media to use as one aspect of the learning experience rather than the focal point.
Their argument is that the learning environment “affects the experiences of the learner and therefore defines the content of the knowledge constructed” (p.6).

Following a similar theme to Marion Diamond’s (Fogarty, 1999, p.78) work on the growth of dendrites in the brain - the “magic trees of the mind” – that develop in response to stimulus-rich environments, Simpson (1994) contended that the more interactive the media and the learning environment, the more likely that learning will occur. He linked critical thinking with memory. Simpson reasoned that critical or higher order thinking is facilitated by neural-group activity in the brain, and the acts of writing and interacting with media may actually alter the brain’s biochemical structure, thereby affecting short and long term memory pathways. Looking at different forms of stimulus-rich environments, Walker (1999) stated that multiple intelligence education is gaining enthusiasm due to the “dawning awareness of the multimedia expressive possibilities of information technology”. Technology may actually assist teachers’ exploration of constructivist approaches.

Professional Development Issues

A major factor in teachers’ professional development in relation to technology is how they perceive and react to the changes they are encountering in the teaching environment. Bates (2000) examined the change processes in the tertiary situation and provided strategies for managing technological change in educational settings. He emphasised the need to develop a collaborative, consultative culture with regard to decision-making processes that included teachers, managers, and administrators. He stressed the human factors in the technological equation. Fox (2000) also addressed the issues of the human component in technological change. He reflected on Taylor’s (1996; 1999, in Fox, 2000) interest in staff and teachers’ engagement with change. Taylor examined factors such as identity, role, career and self-management and how these were experienced and affected by change within an educational organisation. Highlighted were “the importance of respecting ambivalence” and “valuing those who express scepticism towards positive interpretations of the benefits of technology adoption”. Lecturers who had a sound understanding of their teaching practices were better equipped to reflect on “their
existing practices, to evaluate new practices, and to imagine alternative practices” (Taylor, 1996, p.145, in Fox, 2000, p.20). Fox continued the thought stating that academics who “possessed an educational understanding of their teaching practices” were able to face the changes with “less emotive attachment than those who did not possess an educational understanding of their teaching practices” (p.20). Although he was researching the higher educational scene, Fox interestingly drew the conclusion that the rate of change expected should be a “considered” one which would assist staff to “manage their identity, “so that the sense of loss associated with change can be resolved more quickly’” (Fox, 2000, p.20). Fox outlined the concept of “grieving” for present ways of doing things as an important step in “making sense” of what is happening both in relation to the individual’s present practices and change at an organisational level (p.21). He made the statement that universities have always existed in a state of continual change but what is significant is the speed or rapidity of the change currently. These conclusions expressed by Taylor and Fox (2000) mirror the current secondary educational situation with the major difference being that school teachers are educated in the art and science of teaching. They therefore should have a sound understanding of the psychological and philosophical underpinnings of their teaching practices. This contrasts with many academics in universities who frequently have no formalised teaching qualification. Obviously, increased familiarisation and practice with the new technologies is needed also by teachers.

With the requirement to integrate technology into instructional activities continuing from the late 1980s into the new century there has been proliferation of professional development programs in the U.S.A. Most of these programs have been providing teachers with knowledge about computers, selected programs and expertise related to their use. Even though many teachers now have a rudimentary understanding of how computers work, Healy (1998, in Means, 2000, p.186) found “in all too many cases, students and teachers are either not using the technology available to them or are using technology to accomplish things that could be done offline more quickly and with less effort extraneous to the learning content”.

Literature Review – Technological Change in Education
One of the major issues for teachers' professional development with technology is expense. Margaret Riel, Jennifer Schwarz, Heather Peterson and Jill Henricks (2000, p.58) reported that teachers' technological expertise development is limited with casual use that "does not lead to transformational change" in "teaching to a more student-centred, constructivist approach" utilising technology. Ravitz, Wong and Becker (1999, in Riel, Schwarz, Peterson, & Henricks, 2000) linked teachers' adoption of constructivist approaches with an increased use of technology. Many teachers have minimal personal experience with computers and yet are being required to direct student learning in relation to technology. Riel and her associates (2000) reflected that putting computers into classrooms does not necessarily "lead to exciting uses of technology" (p.58).

An additional concern outlined by Riel and her associates (2000), was that research into the suitability and decisions related to the purchase of particular computers were frequently made at a district level with the result that teachers had little knowledge about the machines and their capacities. In order to become computer literate and proficient in the use of networks, teachers need to have "personal, everyday use of technology at home and at school" (Riel et al., 2000, p.59). One strategy that has been explored in some districts is for teachers to take the technology home over vacation periods when they have more time and attention to explore the tools. Although this has had limited success, teachers are not inclined to save information or work on a computer that is on loan. Additionally, for some teachers this may not be a viable option as some schools are open all year round to make maximum use of school resources.

Riel outlined a school district Technology Literacy Challenge Grant (TLC grant) whereby teachers were able to access computers and participate in considerable professional development through financial support from the district. Teachers, within this TLC scheme, were offering workshops on curriculum-integration of technology to their colleagues. The steering team also promoted professional development that included "informal meetings of teachers to plan new uses for technology in their classrooms" (p.60). For their informal meetings to "receive credit" as professional development these teachers were required to document their
project and add it to a showcase of new ideas that served as a learning tool for other teachers within the district, thereby “building their own collective wisdom” (Riel et al., 2000, p.60). In their approach to enhancing teaching and learning processes through a technology-infused curriculum, the steering-team taught numerous classes and created classroom examples to appropriate state standards. Additionally, information and ideas were shared through a weekly journal on the use of technology at the schools, which also served to build a collection of resources and communicated the progress of classroom technology. This project has been highly effective in building teachers’ ownership of technology and professional development and in the process of school renewal. It has increased student use of computers and teachers’ comfort level and creativity with the technology.

The Meaning of Being Educated

Barbara Means (2000) proposed likely directions and implications of technology in education for the 21st Century. Many other educators identify that technology has impacted significantly on teachers and teaching practices. Along a similar vein, Decker Walker (1999) examined the impact of technology on standards. He speculated as to what the criteria for being considered “educated” would be in the near future – “within a generation” (Walker, 1999, p.18). He stated that in the next generation educated people will be expected to:

*Use several symbol systems* – For example the sending and receiving of messages 1) in visual and graphic forms (drawings, photographs and diagrams), and 2) implementing sounds in a sophisticated fashion (voice, background music and sound effects). These tools are currently available and teachers and students are frequently utilising multimedia technology that includes video, graphs generated automatically from tables of data.

*Apply knowledge in life* - Educated people will creatively use what they know to express themselves; to design, build and invent - not simply espouse what they know. Repetition of knowledge without the creative component was referred to as “inert knowledge” that would receive little “respect” (p.20).

*Think strategically* - Previous problem-solving strategies were contrasted with “new” ones. Instead of providing students with a problem in order to apply their
learning to a new situation, information technology facilitates the scaffolding of complex, authentic problems where students can collaborate with peers and adult scientists to collect and analyse data on a range of ecological issues, (eg., acid rain water and air pollution). Strategic thinking will incorporate “taking stock of goals, resources, and knowledge; moving confidently between the details of a problem and the broad plan of action; and explaining what and why every step of the way” (p.20).

Manage information - Previously students were taught how to access information in a library whereas today teachers coach students in using bibliographic resources online on the Internet and World Wide Web. They also need to keep track of what they already have or know, what they don’t, and where to find information across a wider range of sources in order to learn what they need.

Learn, think, and create as part of a team - Teachers have trained students in “self-control and self-management skills” and to “behave politely, obey rules, manage time, meet deadlines”, however, they will also need “social and organisational skills”. Large complex problems will require many people with “varied skills and knowledge”. It will also require these groups of people to be “coordinated” and “mobilised” and this will necessitate social and organisational skills (p.21). Technology is already supporting teamwork and collaboration across vast distances although it is not commonplace (Walker, 1999; Means, 2000).

While many of the skills outlined by Walker are and have been previously identified as important to students Walker has identified the differing aspects of these skills in relation to a technological environment. Walker discussed the likely impact of “raising the bar so far in one generation” on teachers and educational systems. He predicts some will oppose and “resist” the push to use more technology, demanding a reemphasis on “common knowledge, basic skill, and print literacy” and “goals beyond symbols”, for example, “direct experience, feeling, intuition, human relationships, and humanitarian or spiritual concerns”. He predicts a vigorous competition with “some wild fights” (Walker, 1999, p.21). This conflict may be glimpsed in the argument proffered by DeCoker who stated
we often elevate the importance of technology and diminish other aspects of the curriculum. We cut budgets of fine arts and other programs to pay for technology, and we encourage students to enrol in computer courses. Instead of looking to technology for direction, we should focus on all curricular goals. With the whole curriculum in mind, we can consider ways that technology can assist us. (DeCoker, 2000, p.62)

Equity and Technology

Both patterns of use and infrastructure were not equitably distributed in American schools during the 1980s. In 1983, wealthier schools had four times the number of computers than schools in lower socio-economic areas. Students’ usage of computers was different in low-income in comparison to high-income students. Similarly, low-ability students’ usage of technology was predominantly drill and practice for basic skill acquisition in comparison to high ability students’ usage (Means, 2000, p.189). By 1997 in the U.S.A. the difference in access to technology between low and high socio-economic areas, occasionally referred to as the “digital divide”, had decreased due to increased funding from Federal programs. However, this divide is still a concern in relation to Internet access and patterns of usage (Means, 2000, p.195).

Mirroring the American situation, equity has been a concern in Western Australian schools, however, the State Government Learning Technologies funding policy sought to reduce the gap. The process was that schools could gain access to funding if they developed a Learning Technologies plan for the school that corresponded to the Government guidelines.

DeCoker's (2000) emotive plea that ... “[i]nstead of looking to technology for direction, we should focus on all curricular goals. With the whole curriculum in mind, we can consider ways that technology can assist us” encapsulates the pressure teachers are experiencing, not only in having to up-skill themselves in relation to the new technologies, but also in the shift in perception of what constitutes education. Walker (1999) stated teachers, who may have been the first in their families to be
university educated, "will hear the next generation say that their skills no longer qualify them as fully educated people" (p.20). Similarly, leaders who have worked tirelessly for years to improve student standards will hear that standards are "not high enough" (p.20). He raised the interesting issue that more effort and resourcing alone probably will not be enough to reach the new expectations, rather, he proposed that students should be more motivated to work on "authentic problems" and "assume more responsibility for the learning, to work in teams, and to assemble portfolios of their work" (p.20). Assessment will alter to better display student effort, "talent, and energies" and students will support one another through mechanisms such as peer tutoring (p.21).

One suggestion is that the technologies that have created the problem of redefining what is meant by the term "educated", will actually "help solve it". This could be achieved by supporting the translation from one symbol system to another, telecommunications will facilitate and support collaboration, and the exploration of authentic problems. Technologies will also increase the participation and collaboration between interested stakeholders such as parents, teachers and other consultants related to the student’s development. Electronic portfolios will better demonstrate students’ true potential than conventional tests. Walker concluded on a positive thought that although the next generation of teachers and students will face many challenges with it will come many exciting opportunities (Walker, 1999).

**Chapter Summary**

Examined in this chapter was the hugely diverse sphere of technology, namely technology as tools, as practice and as a way of conceptualising practice. The literature focused on the impact of technology on education and how it is changing what teachers do, how they do it and how they think about doing things. Implications related to community expectations for educational standards were proposed. An alternative perspective on teaching was the refinement of present constructivist approaches utilising new technologies. This provided a refreshing perspective. The final literature chapter explores the aspect of the educational environment within which teachers work.
CHAPTER 5
LITERATURE REVIEW:
THE EDUCATION SYSTEM

Schools, being the well-established social institutions that they are, affect everyone's life. So it's not surprising that everyone, from the average citizen to the highest ranking government official, gives educators advice on ways to 'fix' education. We recognize that these suggestions are well intentioned and in many instances quite appropriate. However, we know that to renew our schools, there is no quick fix and no single right answer to the problems that plague us. To do the job requires knowledge based on research and a collective effort by all stakeholders.

Barbara Talbert Jackson (1993 in Joyce et al, 1993)

Figure 5.1: Conceptual Framework – The education system component.

Historically, education has been an easy target for political reform as a social institution that accepts the mantle of responsibility for solving societal problems. This chapter briefly examines how education is viewed by government agencies. It also describes some of the reforms that have impacted on the educational situation in the United States of America, United Kingdom, Canada and here in Australia. Devolution or site-based management is discussed and the implications examined related to school leaders, culture, time and curriculum change. Outcomes-based education is examined and how that curriculum reform has been imposed in the
Western Australian educational environment. Managing change and the impact of change on school and teachers is explored.

Educational Reform

Barbara Talbert Jackson remarked that schools “being the well-established institutions that they are ... affect everyone’s life” and everyone from the average person on the street to the government official “can provide educators with advice on ways to ‘fix’ education” (1993, in Joyce et al., 1993, p.8). Although many of the suggestions have had merit or are well intentioned it needs to be acknowledged that “school or educational reform(s)” do not have a “quick fix” or a “single right answer” to the problems that are plaguing the education communities. This phenomenon has become so common that educational literature frequently contains words such as “reform”, “transformation”, “change” and “restructuring” (Guskey, 1986; Teaching as a Profession Task Force, 1986; McElrath, 1988; Ingvarson & Loughran, 1992; Stones, 1992; Joyce et al., 1993; Clarke & Hollingsworth, 1994; Hargreaves, 1994; Joyce & Showers, 1995; Darling-Hammond, 1996; Guskey & Peterson, 1996; Seddon, 1997; Schwahn & Spady, 1998; McChesney & Hertling, 2000; Moffett, 2000; O'Neil, 2000).

Why has the concept of educational reform emerged or gained such popularity? In 1986 a report of the Task force on Teaching as a Profession in the executive summary of A nation prepared: Teachers for the 21st Century stated ... 

America’s ability to compete in world markets is eroding. The productivity growth of our competitors outdistances our own. The capacity of our economy to provide a high standard of living for all our people is increasingly in doubt. As jobs requiring little skill are automated or go offshore, and demand increases for the highly skilled, the pool of educated and skilled people grows smaller and the backwater of the unemployable rises. Large numbers of American children are in limbo – ignorant of the past and unprepared for the future. Many are dropping out – not just out of school but out of productive society. As in past economic and social
crises, Americans turn to education. They rightly demand an improved supply of young people with the knowledge, the spirit, the stamina and the skills to make the nation once again fully competitive — in industry, in commerce, in social justice and progress and, not least, in the ideas that safeguard a free society (Teaching as a Profession Task Force, 1986, p.1).

Webber (1995a) discussed international trends that were affecting education in America and Canada and outlined these as the “growing tension among government, business, school, and university communities” (p.3). These issues mirror the Australian context closely.

Edgar Stones picks up this theme of reform in the United Kingdom. He stated …

over the last decade education in the UK has been reformed to death. Politicians imbued with Thatcherite ideology have changed the face of education out of all recognition. With total power in the legislature, successive ministers coming to education for a brief time before moving on to more important and prestigious posts, have played with the school system like children with new toys (Stones, 1992, p.2).

He made an observation that “teaching is seen by most of the world outside teacher education, and by many within it, as comprising nothing more than the delivery of the curriculum”. He felt this “delivery view” had serious implications for the profession by delegating teachers to the rank of “errand boys and girls” and to be perceived and treated as such by society. This view that “one can learn to teach (simply) by imitating other teachers is deleterious to the belief that teaching is a “highly skilled activity involving sensitive human relationships of immense complexity” (Stones, 1992, p.4). This would involve the teacher skilfully structuring the environment in order for learning to take place, resulting in the student being able to do things or to solve problems they were previously unable to do. Stones created an intriguing analogy comparing the modification of the physical brain structure by a brain surgeon, performed one operation at a time, with the teaching profession where the teacher “aspires to change the way the brains work, commonly thirty or more brains at once” (Stones, 1992, p.4). He then compared society’s perception of the
highly prestigious profession of brain surgeon with the comparatively low-status profession of teaching.

**Structure and Bureaucratic Reforms**

Literature frequently refers to educational reform in the United States of America, Canada and the United Kingdom but this does not mean that Australia has been exempted from this phenomenon (Costello, 1991). Peter West (1991) outlined and discussed the radical changes that had occurred to education in New South Wales and highlighted the links between political policy and educational change. The events he described bear remarkable similarities to Susan Robertson’s account of changes that occurred in Western Australia during the same period.

Robertson (1993) tracked the changes in the socio-political culture in education. She stated that devolved structures were not unique to Western Australia. The intention and commitment to transform the public sector precipitated devolution in decision-making and other structures. The early 1980s saw an escalation in public criticism of the educational sector and record levels of unemployment, particularly among the young members of the community. The government “faced a fiscal and legitimacy crisis, unable to fund or respond to the growing demands made upon it” (p.119).

**Historical Perspective**

The Ministry of Education released *Better schools in Western Australia: A programme for improvement report*, which outlined the “devolution of administrative responsibility to enable school self-management over a period of five years” (devolution - the supposed shift of control and decision making to the school level) (Robertson, 1993, p.124). Community participation was welcomed in this new management model. Schools were reorganised into smaller collegially managed units, which were to be responsive to centralised, policy-making, corporate head office. While devolution of control to schools is a relatively recent reform in Western Australian education, it has been documented widely in overseas literature (Anderson & Dixon, 1993; Ball, 1993; Brennan, 1993; Dermaine, 1993; Smyth, 1993; Sparkes & Bloomer, 1993; Watkins, 1993; Conway & Calzi, 1996; David, 1996; Latham,
The purpose for journeying into these new forms of management is usually touted to be for increasing student achievement and/or performance (Conway & Calzi, 1996; David, 1996; Latham, 1998; Holloway, 2000).

When devolution was introduced there was considerable dissatisfaction from interested parties, such as, the Western Australian State School Teachers Union (SSTU). The lack of consultation involved in the formulation of the Better Schools report and tighter accountability structures which were embedded in the restructuring contributed to the critics’ arguments. Concern was expressed that devolution entailed the acceptance of greater responsibility with less power and “excessive attention to outcomes as opposed to processes” (Robertson, 1993, p.124). What followed was “massive cuts” in the education budget that endorsed the view that the reforms were ultimately focused on “cost-cutting”. The SSTU called upon teachers to boycott the implementation of the Better Schools proposals specifying that teachers should “not take part in drawing up school development plans, and to do nothing in their own time” (p.128). What resulted was industrial action for the purpose of seeking wage increases in order to compensate teachers for increased administrative duties. The protracted industrial action was eventually resolved, but not before teachers’ morale had been seriously damaged with half (50%) of teachers reporting that they would “not willingly choose to work in the profession again” (Robertson, 1993, p.128).

**Devolution – The Debate**

Conway and Calzi (1996, p.46) referred to site-based management reform as “education’s cult of efficiency” where “decentralization and empowerment have moved from industry to education”. Some literature identifies site-based reforms as a shift in the balance of authority among schools, districts and the state. It is frequently linked with such terms as “teacher empowerment” and increased “teacher satisfaction” (Webber, 1995a; Conway & Calzi, 1996; Latham, 1998). This shift “claims to trade school autonomy for accountability to the state” (David, 1996, p.6; Angus, 1993).

A study conducted by Kowalski (1994, in Latham, 1998) involving 149 principals found that the majority (88%) agreed that site-based management is a “sound
concept for school governance’, that “change was more likely to occur at the school level than at district or state level”, and that it “encourages teachers to assume higher levels of responsibility” (p.85). Conway and Calzi (1996) reported on a study conducted by Weiss (1993, in Conway & Calzi, 1996) where teachers involved in the decision-making processes within their schools did feel more professional and enjoyed the increased authority and collegiality. Similarly, Latham (1998) reported that teachers welcomed the changes. Findings of a project conducted with a Western Australian school by Robertson and Soucek (1991, in Robertson, 1993) found that teachers did not romanticise previous bureaucratic structures. They reported disliking the “excessive rules, imposed rigidities, the lack of opportunity for change, inflexible resourcing and staffing boundaries, the promotion by seniority and an irrelevant curriculum” (p.129). Many indicated that there was a need for change and they were happy to embrace it; even though the reforms had altered the shape of the school environment within which they worked.

Site-based management appears to be a highly advantageous situation for teachers and schools. If successfully implemented “teacher involvement in certain kinds of decisions can be mutually enhancing: it returns to teachers the power to govern their own professional affairs, and teachers in turn, empower administrators to make decisions that enhance the organisation’s goals” (Conway & Calzi, 1996, p.49). It also appears to be the most likely situation for educational reform to occur, however, there is little evidence that there is any positive effect on student learning (Conway & Calzi, 1996; Latham, 1998).

Angus (1993, p.12) cautioned that site-based management “may well serve as conservative managerial devices rather than genuine democratic reforms”. Continuing the thought, Ball (1993, p.65) indicated that schools were placed in a paradoxical position in that “they are to be given greater autonomy within the constraints and pressures of market forces; they are to be able to exercise flexibility in order to be more responsive”. This note of caution was reiterated in most of the literature in relation to the level of accountability to outside authorities and expected compliance to corporate principles (Angus, 1993; Ball, 1993; Brennan, 1993; Robertson, 1993; Smyth, 1993; Sparkes & Bloomer, 1993; Webber, 1995a; Conway...
& Caizzi, 1996; Latham, 1998). Frequently in Western Australian schools, principals and decision-making committees found that the boundaries of their autonomy were unclear and numerous decisions and initiatives had to be withdrawn because they were in conflict with “centrally made determinations” (Robertson, 1993, p.129). This confusion was compounded by the number of centrally driven policy initiatives that emerged, such as “pathways, post-compulsory schooling, national curriculum, and testing and standards” (p.129).

Other concerns related to site-based management were that principals and teachers were also experiencing a considerable increase in workload, paperwork and accountability to government agencies (Robertson, 1993). Another potential danger revealed by Davies was the refocusing of teachers’ priorities to management activities rather than the core business of teaching and learning, a concern strongly reiterated by a recent Ministerial Task Force (2001) established to examine the state of Western Australian Government education. Davies stated when …

new teachers and those looking towards the furtherance of their career see that the ‘top’ jobs involve management activity, then it is hardly surprising that staffroom conversation is about management, systems and procedures, rather than about the excitement of the last lesson and the looking forward to the next (Davies, 1992, in Ball, 1993, p.78).

Western Australian teachers further indicated causes for concern with the “knowledge and secrecy, politicking, bargaining and the advancement of personal careers” that was increasingly occurring as a result of site-based management. Additionally, adjusting to the “new system of power” had “required new skills and time” (Robertson, 1993, p.129).

**Leadership and Site–based Management**

With site-based management comes increased focus on the quality of the leadership available in schools (Garmston, 1987; Sergiovanni, 1993; Hargreaves, 1994; Conway & Caizzi, 1996; Olson, 2000). Holloway recommended that school leaders ensure that councils have sufficient time to meet and dialogue with the school on relevant issues, principals “refrain from directing and telling others what to do”, and disperse power
and responsibility to others within the school community (Holloway, 2000, p.81). He also stated that there was a need for professional development in communication and decision-making skills for staff that were taking up these new responsibilities. Conway and Calzi (1996) indicated that a major issue was "trust". That is, teachers' trust in their Principal. They stated "where trust is high, participation becomes less crucial (though never unnecessary)". They cited a case of a principal who had earned the trust of his staff through his "evenhanded, consistent behaviour" to the point where the staff responded "leave the management to the manager, and let us teach!" (p.49 - italics in original). They outlined a number of key principles for site-based management, which included:

- clarity of goals,
- sunset clauses for committees with specific purposes,
- increased accountability to ensure equity, and finally,
- a maintenance that the final focus should be on enhancing teaching and learning processes to ensure that students' learning will benefit.

(Conway & Calzi, 1996, p.49)

**Reforms in Curriculum**

Curriculum frequently becomes the target of reform. Allan Glatthorn (2000) tracked the various curriculum "streams" or "orientations" from the post war period through to the present. He indicated that curriculum changes are "dynamic" with more than one orientation "flowing" during the same period. He stated "the strength of a given stream is clearly influenced by many factors, especially complex societal and cultural forces" (Glatthorn & Jailall, 2000, p.98). Glatthorn's comments certainly reflect curriculum reform in Western Australia.

**Historical Perspective on Curriculum Reform**

During the late 1980s, "Unit Curriculum" emerged from the Beazley report and was proposed to overcome the problems associated with streaming (placing students with similar ability levels into the same classes) in secondary schools, career irrelevance and a narrow range of subjects (Robertson, 1993, p.131). This curriculum reform coincided with increases in unemployment and a reduction in welfare support for the
unemployed resulting in a rise in the number of reluctant students returning to schools. While teachers initially welcomed the broadening of the curriculum base it required considerable financial support that was not forthcoming. The increasingly diverse curriculum became “highly tailored and modularised into consumerable packages and excessively assessed” (Robertson, 1993, p.131). Assessment dominated teaching programs and undermined the promotion of longer-term problem-solving and process skills. Some teachers felt that the curriculum changes were a disaster while others “welcomed the opportunity to become involved in the corporate life of the school” (p.131).

**National Profiles and Statements**
During the late 80s early 90s, focus was shifted from modularised forms of curriculum to a more systematic approach. Eventually, a set of shared learning outcomes was defined in the National Profiles and Curriculum Statements in Australia (Masters, 1991; Griffin & Smith, 1997). They were the closest Australia has come to developing a national curriculum. The outcomes were formulated in eight key learning areas with a number of strands to each. Within each strand were eight levels and within each level a series of outcome statements. Initial response from teachers was that teaching and assessing to the required levels was daunting. All of the states developed their own version of the national statements, however, the national profiles formed the “central basis for outcome-based teaching and learning” (Griffin & Smith, 1997, p.6).

**Outcomes-based Education**
Bill Spady first coined the expression “outcome-based education” and is considered to be the “father” of outcome-based education (Spady & Marshall, 1991). He challenged “beliefs resulting from the representations of the bell curve and traditional systems of grading” (Geddert, 1993, p.206). Outcome-based education involves designing down from where you want to end up and is founded on three basic principles:

- All students can learn and succeed (not necessarily at the same time)
- Success breeds success
- Schools control the conditions of success
Definition

Spady defined outcomes as “high-quality, culminating demonstrations of significant learning in context”, that is, the actual capabilities (knowledge, understanding, competencies) of students as a result of their schooling (Spady, 1994, p.18). Students’ achievement of outcomes “may be observable or internal changes in the learner” (King & Evans, 1991, p.73). There is confusion regarding the differences between goals, outcomes and objectives, which has resulted in these terms being used almost interchangeably; however, outcomes are broader than objectives in scope and describe “characteristics, behaviours or understandings in the learner which have significance beyond the particular learning sequence or phase” (Willis & Kissane, 1995, p.7).

In outcome-based education the school and teachers should have a clear idea of what they expect students to be able to do, know, and understand. Spady sums up this situation by posing a series of questions …

First, do we have a clear focus on what we expect of our kids? Second, are we willing to provide expanded opportunities for our kids to be successful? Third, what can we say about the system of expectations we have in our district? Look at our tracking; look at our grading system. And fourth, how do we design curriculum? Are we designing down from clearly-established outcomes, or are we simply buying textbooks and perpetuating what has been done for a 100 years? (Brandt, 1992/3, p.70).

Outcome-based education in some literature is now referred to as “results-driven education”. “Results-driven education judges the success of schooling not by the courses students take or the grades they receive, but by what they actually know and can do as a result of their time in school”. The use of this term is to avoid many connotations associated with “outcome-based education” (Sparks, & Hirsh, 1997, p.4).
Traditional, Transformational, or Transitional Outcomes

As outlined by Spady, traditional outcomes encourage staff to use their existing curriculum and devise outcomes as the starting point, whereas transformational outcomes work from exit outcomes that relate to real-life or adult-life requirements and the curriculum is developed upon those key outcomes (Spady & Marshall, 1991). Transitional outcomes are essentially just that – “exit outcomes” identified as important and in which every student should be competent at the conclusion of their school education. They may not reflect the “real-life” nature of outcomes to which Spady refers, but are important to people in their post-school life. Spady is generally critical of “traditional” outcomes as they tend to reflect a narrow perspective to education, of success at school, almost ignoring the importance of the post-school requirements for the learner. Transitional outcomes are more favoured from Spady’s viewpoint as they emphasise the importance of exiting outcomes that will enable the learner after graduation.

Outcomes Based Education – The Debate

Like all curriculum developments/reforms, outcome-based education has not been universally accepted (Manno, accessed 25/10/2000). Some indicate that the process is too complex, the extra workload on teachers is too great and parents will not understand what the reports actually mean (Grace, 1995). One of the criticisms levelled at outcome-based education is the association with behaviourist models (Jones, 1994; Slavin, 1994). This is due to the emphasis on performance of students and demonstration of competencies. Others felt that it “seemed to take over parental functions” and as a result some Christian schools and districts have rejected outcome-based education (Burron, 1994; Fritz, 1994; Glatthorn & Jailall, 2000, p.105). Eisner expressed concern regarding the use of standards in measuring students. He stated “I don’t value schools that regard children as an army marching toward fixed and uniform goals … the current emphasis on standards will provide no panacea in education”. He continued stressing that the focus should be on how teachers teach and build educational environments that promote the professional growth of teachers rather than “trying to determine through standard means whether or not our students measure up” (Eisner, 1993, p.23). Others feel that this is a fad with little firm proof that it will work (Towers, 1992; 1992b), and may result in
considerable additional cost in training of teachers and time engaged in assessing
students (Zlatos, 1993). Some were concerned about standards and the difficulty in
attaching levels to students' work (Wiggins, 1993; Darling-Hammond, 1994a;
Resnick, 1994). Sperling discussed the need for inservice training for teachers to
assist them to improve their interrater reliability in assigning a rating to students'
performance and to assist them with teaching strategies.

Sperling (1994) discussed teachers' progress with assessing student outcomes. They
found that their teaching strategies needed to "match the outcomes or assessment
criteria" and if they didn't they experienced difficulty assessing students. After three
years, they also reported having internalised the criteria and were learning to observe
and assess student performance as they taught. Summing up the findings he stated ...

... you cannot mandate skills, creativity and commitment to
continuous improvement ... you must have patience ... teachers need
many opportunities to share their successful strategies with
colleagues, and to receive support as they work through their
problems. Administrators need to listen well while teachers relate
what does and doesn't work (Sperling, 1994, pp.12-13).

Sperling's study endorsed the findings of Joyce, Showers, Guskey, Sparks, Fullan,
Hargreaves and others in relation to establishing appropriate professional
development processes that incorporate collaborative collegial support mechanisms
(Showers, Joyce, & Bennett, 1987; Fullan & Hargreaves, 1991; Guskey & Sparks,
literature also documents schools and districts that have experienced educational
gains both in student learning and learning about teaching through exploring
outcome-based education (Vickery, 1988; Fitzpatrick, 1991; Adams, 1992; Castner,
Costella, & Hess, 1993; Evans & King, 1994; Bacon, 1995; Hartenbabach, Ott, &
Clark, 1997).

When examining the literature, assessment in outcomes-based education is certainly
a contentious issue. Many schools and districts are examining pre-existing
conceptions related to assessment (Simmons & Resnick, 1993; Wiggins, 1993; Jasa
& Enger, 1994; Marzano, 1994; Sperling, 1994; Shepard, 1995). One of the major
concerns with outcomes-based assessment is the validity or the extent to which they measure what they are supposed to measure. Marzano (1994) stated performance tasks are considered to have "strong 'face validity'", in other words they appear to be measuring what they are supposed to measure. Gathering evidence to prove that they are indeed measuring what they purport to measure is "quite difficult" (Marzano, 1994, p.49).

Spady indicated that demonstration of outcomes must be "high quality" meaning they must be "thorough and complete" (Spady, 1994, p.18). This has led to various alternatives, for example, "performance-based" or "authentic" assessments (Darling-Hammond, 1994b; Resnick, 1994). These are characterised by engaging the student in "real-world" tasks in contrast to previous forms of assessment such as multiple-choice tests. Darling-Hammond identified authentic assessments as including oral presentations, debates, exhibitions, videotapes of performances, collections of students' written products, constructions and models, their solutions to problems, experiments etc. They may also include teachers' observations, inventories of individual's work and behaviour and cooperative group work (Darling-Hammond, 1994b, p.6). Marzano recommended using "performance assessments" because they:

1. provide clear guidelines for students about teacher expectations (Berk, 1986);
2. reflect real-life challenge (Hart, 1994);
3. make effective use of teacher judgement (Archibald and Newmann, 1988);
4. allow for student differences in style and interests (Mitchell, 1992; Wiggins, 1989); and
5. are more engaging than other forms of assessment (Wiggins, 1991).

(Marzano, 1994, p.44)

Performance assessment also raises the issues of standards and time. Simmons and Resnick (Simmons & Resnick, 1993, p.12) reported that "actual examples of students' work that exemplify outcomes specified by content standards" are required. Performance standards must provide examples of "explicit definitions of what students must do to show that they have learned to an adequate level the specified skills, strategies, and knowledge" (p.12). Teachers must collect the most reliable and authentic estimate of students' work and this must be done "over an extended" period
of time and with their guidance. These collections are frequently referred to as student portfolios (Simmons & Resnick, 1993; Garcia, 1994; Resnick, 1994).

**To Change or not to Change?**

As previously outlined, over the past twenty years Australia has endured numerous reform initiatives. Some have related to “new curricula frameworks, student assessments and school organisation policies” while others have focused on “devolution of governance to school-site councils” and other forms of “decentralisation and restructuring” (Ingvarson & Loughran, 1992, p.2). Change is occurring in all spheres of life and education is one area that has not, and should not be exempt. Dinham states “there is no reason why educational employees, institutions or systems should be immune to or protected from change” (Dinham & Scott, 1997, p.1). Positive action has been taken to attempt to counter the claims of poor literacy and numeracy in high school graduates; although not all of the changes occurring within education have been constructive. Dinham reflected that where change becomes “problematical” is when the motives for change are “conflicting” or when the “outcomes of various changes were not positive for students and teachers”. He elucidated a compounding issue that various previous changes had been “advocated and even mandated” and were later “reversed” thereby creating a loss of confidence within the educational system affected (p.2). Dinham refers to Hargreaves work in identifying the causes for these changes. He reported that rather than achieving “educational ends” these changes have been facilitated for “‘economic regeneration’ and the ‘rebuilding of national cultures and identities’” (Hargreaves, 1994, in Dinham & Scott, 1997, p.2). It is easy to identify the issue regarding why change fails, referred to by Fullan (1991) as change “factors”. The problem with identifying these change factors is that solutions are not readily obvious. Therefore change processes appear to be important in addressing change factors.

**Change Management**

Frequently, reforms do not yield the expected outcomes, so new policies are again formulated. This constant imposition of policy raises the question - why don’t these
policy initiatives, even educationally sound initiatives work? Schwahn and Spady (1998) identified five reasons why change doesn’t occur and provided pointers to “make sure that it does”. The reasons were:

1. the “purpose isn’t compelling enough” reasoning that “people don’t change unless they share a compelling reason to change”;  
2. “people don’t change unless they have ownership in the change” possibly the change wasn’t developed appropriately;  
3. the innovation was not used immediately indicating that “people don’t change unless their leaders model that they are serious about the change”;  
4. “people are unlikely to change unless they have a concrete picture of what the change will look like for them personally” therefore people were not aligned to the change; and  
5. “people can’t make a change – or make it last - unless they receive organizational support for the change” therefore the organisation was not aligned to facilitate the change.

(Schwahn & Spady, 1998, pp.45-47 italics in original)

Ball (1993, pp.63-64) discussed the changes in the United Kingdom, which tended to parallel Australian educational reforms. He reflected that the changes were “all happening at once” ... “frequently altered, amended, and reoriented”, where “advisory committees [were] set up and then ignored”. Describing his rather bleak perception of change and the effect on teachers he stated “these changes [were] all facets of current Conservative government education policies ... (t)eacher representatives [were] excluded from consultations, consultation processes [were] deliberately short and responses [were] typically ignored. Separately and together these changes [were] bringing about profound shifts in the nature of teaching and the teacher’s role, ... in the relationships between schools and parents ... and in the nature of the schools as work organisations. Not surprisingly, many teachers appear weary and wary, stressed and depressed, alienated and bitter. They [were] faced with threats to their autonomy and status, and livelihood in some cases, but [were] expected to respond constructively and intelligently to make sense of the uncertainties, incoherence and complexity of change. In a sense the more successful they [were] at coping, the more of themselves as professionals and their experience
they [had to] forego. Together these changes assert a massive and complex technology of control over teachers’ work in all its aspects” (pp.63-64).

Devolution – The Debate

John Smyth (1991; 1992) perceived “devolution” and “autonomy” in a more sinister manner. He related that educators were experiencing the “overwhelming principles” of “corporate managerialism, increased centralism and the instrumentalists and technicist approaches that accompany the pursuit of the twin gods efficiency and effectiveness” (Smyth, 1992, p.269). These reforms were touted by the “economic reconstructionists” as the keys to “reversing economic decline by restoring educational productivity”. This would be by arresting …

*the ‘loss of authority, the rise of mediocrity, the watering down of curricula, the lowering of standards, the decline of achievement’ and restoring schools to their earlier pre-eminence as the producers of passive and compliant labor and the deliverers of basic skills and literacy* (Smyth, 1992, p.277).

As a part of these adroit moves by the government and commercial interests who were orchestrating these changes he noted that “we” the teaching community were “being courted by moves that appear to make schools more ‘self-determining’ and ‘self-renewing’, with teachers who are more ‘autonomous,’ ‘empowered,’ ‘collaborative,’ and ‘reflective’” (Smyth, 1992, pp.269-270). He stated that these positive terms were in effect a “paradox” whereby teachers were supposedly more independent and professional, however, due to the nature of the controls being placed upon each school from the centralised authorities, this was a “mismner”. Rather, the only freedom the school (and therefore teachers) had, was in determining the exact manner in which they would undertake to achieve the “agreed outcomes” (Smyth, 1991, p.7; 1992, p.271). These were outcomes which had been imposed by “an elite decision-making group” with little or no input from the teaching community (Smyth, 1992, p.269). This was a perception endorsed by McElrath (1988, p.5) when he reported that state boards were assuming greater control over schools through statutes and legislation that was removing “autonomy” from schools and further “disenfranchising teachers”. Hughes (1991) similarly reflected on the “two apparently opposing patterns operating simultaneously” within the Australian
situation. With devolved decision-making on one hand and greater accountability on the other (p.5).

**Decision-making in Professional Development**

Joyce and Showers (1995) acknowledged the problem identified by Smyth (1991; 1992) of autocratic processes within the educational structures. They cited the situation whereby teaching staff have professional development programs or other changes imposed upon them from “on high” or from the “governance” structures with little or no consultation. They stressed the need for professional development programs to be adopted through democratic processes with staff. Imposition of change with little or no input from individual teachers causes resentment and negativity and perhaps explains a general lack of success of most professional development initiatives introduced into schools without an appropriate teaching/learning structure being established.

From their research into establishing systematic professional development in schools, Joyce and Showers stress the necessity of establishing democratic decision-making procedures. The decision-making procedures should include the four levels of education – the individual practitioner, the school as a whole, the district office, and the central office or “governance” or political force behind the system. Initiatives generated by only one of the four sources will probably have limited success; whereas, if these four groups coordinate their professional development efforts an increased prognosis for success would be anticipated (for details of a Western Australian state-wide professional development initiative, refer to Appendix I).

Joyce and Showers (1995) discussed the need to have a well designed professional development system. They indicated that governing agencies, who are largely concerned with the financing of education, will find that ...

- the newly popular ‘Total Quality Management’ and ‘Systemic Reform’ approaches ... unless backed by very strong staff development, will have no greater effect than their predecessors of a few years ago, like ‘Strategic Planning’ and ‘Restructuring’.
They noted “some of the governing agencies ... have recently tried to compel personnel to improve by changing assessment systems” and that these “accountability-based assessment systems” changes will also experience failure unless they educate the staff to implement them effectively. A fundamental component of “effective training” is the concept of investing in people through the “provision of time within the workday for the study and collaborative planning” that supports and legitimises the initiatives (Joyce & Showers, 1995, pp.7-8).

Teachers – The Tools for Reform Implementation

Dinham (1995, p.2) identified that above all, the impact of reform initiatives has been the “increased politicisation” of education. He felt the “connotation of ‘reform’ is that schools and teachers are deficient and that educational systems are in need of urgent and major overhaul” (p.2). Teachers are easy targets as the readily identifiable tools for the implementation of change (Clarke & Hollingsworth, 1994; Dinham, 1995).

John Goodlad (1994, pp.637-638) described an “input-output model” that holds considerable “political appeal” for those who wish to be credited with implementing educational reform. The model works on the assumption that teacher development will immediately and automatically result in increased student performance in a “neatly linear” manner. Again this model is based upon the basic concept that the teacher is deficit in skills or knowledge, thereby adversely affecting students’ performance (Clark, 1992; Goodlad, 1994). He indicated that even though this model has not proved to be successful in the past it continues to be employed as “it serves well the interests of those who seek simplicity in matters educational” (p.637). The model is “bankrupt” when examining schools, as they are “complex cultures”. He likens schools to “ecosystems wherein individuals interact with one another and with elements of a larger surrounding ecosystem”. He proposed an ecological analogy where “students, teachers, and other workers interact within a cultural membrane that is permeable to the influences of the larger surrounding ecosystem. Sometimes, the influence flows both ways; sometimes, not” (p.638). For example, initiatives such as “international competitiveness” and increased “teacher accountability” may flow in through the membrane from the outside (outside education), but it is unlikely that
they will have the effect of making the school culture more “goal-orientated and responsive” (p.638).

**Teachers’ Responses to Reform**

From the review of the literature, change is a prevalent theme and will occur in education and as Dinham (1997) states change is not automatically deleterious. Problems arise when there are too many changes too quickly with this process repeated over an extended period. An EDWA Task Force recently reported problems with the “Department’s culture”. They indicated that EDWA had “become fascinated or bogged down by how to go about their operations” and needed to “put children first and focus on the fundamentals of teaching and learning” (New ethos needed in education, 2001, p.14). The main policies that impacted in this study were Learning Technologies, Outcomes-based Education (Curriculum Framework and Student Outcome Statements), Local Area Planning and Merit Selection (related to site-based management), Middle Schooling, and Performance Management (related to quality assurance). For more details regarding these policies please refer to Appendix J.

Over the past decade teachers have been reporting stress and frustration with the constant changes and their inability to focus fully on teaching (West, 1991; Dinham, 1993a; Watkins, 1993; Ingvarson & Chadbourne, 1994; 1997; Latham, 1998; Gale, 1999; Holloway, 2000). Compounding teachers’ stress and dissatisfaction is the issue that Australia has an aging teaching population, many of whom have endured numerous reforms and curriculum innovations over the period of their career and are experiencing a reduction in their capacity and willingness to respond to policy (Ingvarson & Loughran, 1992; Robertson, 1993; 1994; Dinham, 1995). Teachers’ “willingness” to “work hard and implement change initiatives” was discussed by Webber (1995b, p.21) as an issue for superintendents.

Teachers have reported dissatisfaction with the …

*little time to talk to colleagues, long hours, typically minimalist relationships with students, weekends of work, of being ignored, and*
of the pressures to develop the credentials that would allow them to be promoted within the system (Robertson, 1993, p.132).

The new corporate nature of schooling has created a tension for teachers between commitment, in terms of participation in the corporate life of the school and their classroom interests. Less time now exists for professional and personal reflection, which has negatively impacted on teachers’ professional growth.

In this chapter the literature related to the educational system within which the teachers in this study were working was examined. The predominant theme was reform. Reform was explored from three differing aspects - structural and bureaucratic procedures within the education system, curriculum and instruction, and the responses of teachers to this reform environment. From the literature it was demonstrated that reform in education has been a global phenomenon and Western Australia has not been exempted from this global trend. The perception that some administrators have that professional development is an antidote to the negative effects of reform was explored. Inevitably, teachers have been affected by this environment of reform, and their responsiveness and range of reactions was considered.
CHAPTER 6
RESEARCH DESIGN

The method used to collect the data for this study was survey research, specifically utilising telephone interview procedures. This investigative process had been used successfully in previous studies and was found to be most appropriate given the resources available and the scope of the study (Baker & Scott, 1995; Baker, Scott, & Showers, 1997; Scott, 1997). Other methods of data collection such as participant observation, classroom observation, postal questionnaire, and exploratory and standardised interviews were investigated to ensure that the optimal method was selected. These methods were found to have inherent advantages and disadvantages but due to the likely sample being widely distributed over the state (2,527,621 km²) the previously mentioned methods were not feasible. A structured telephone interview method was chosen as the most appropriate approach given the specific parameters of the research proposed.

This chapter examines the processes involved in conducting telephone interviews and the role of telephone interviews in educational research and reviews associated issues of reliability and validity. The demographics of the sample are specified and the developmental stages of instrument design are outlined. An account of the procedural stages of the study, such as the trial, pilot and interviews are detailed. Data from interviews were fully transcribed from tape recordings, analysed and placed into a Microsoft Access database that had been specifically devised for this study. The database was then imported into SPSS (1997) and statistical analysis performed. The qualitative data was analysed using a combination of Word 98, Excel and Access.

Interviews

With limited resources available for this Doctor of Philosophy study, the complication of prospective respondents being widely distributed across the state, together with the difficulties encountered in locating and contacting an adequate number of teachers who were willing to be involved in the study, telephone interview
method was deemed appropriate. Telephone interviews rather than mail questionnaires or the other previously mentioned methods were considered to be a better option. As the main focus of this study was to obtain an insight into teachers’ perception of professional development (PD), telephone interviews appeared to allow more in-depth pursuit of key open-ended items, such as examples of PD courses undertaken over the preceding 18 months, their choices and motivations related to their professional development, and their perception of the effectiveness of the programs. The interview schedule was developed from material suggested by previous research and research instruments utilised in this field (Baker & Scott, 1995; Baker, Scott, & Showers, 1997; Scott, 1997) and an intensive literature search (Oppenheim, 1992; Dinham, 1993b; Cohen & Manion, 1994; Gall, Borg, & Gall, 1996).

Data Recording Procedures

According to educational researchers such as Cohen & Manion (1994), Borg (1989), Gall (1996), and Jaeger (1988) the loss of data is acknowledged as being inevitable and will occur in any survey. This may occur at the interview stage, coding, statistical analysis and/or at the write–up stage. Knowing this, researchers must attempt to limit the amount of loss due to instrument design. Open response questions appear to offer the best option, but even this type may result in editing by respondents themselves. The best method of limiting this loss is to conduct thorough trial and pilot work in an endeavour to formulate a superior instrument with exemplary, relevant and inclusive choices in the closed questions and provide the opportunity of clarification in sections that may require this freedom (Oppenheim, 1992).

With previous studies, the researcher utilised manual note-taking procedures. This proved to be a laborious task that resulted in frequent pauses, which extended the duration of interviews. This would have been a considerable disadvantage as the target population was high school teachers who are renowned for being extremely busy and who would not view the delay with favour. An additional concern was that there had to be some loss of data by reason of manual note-taking rather than tape recording the interviews. Drawing upon prior experience, data were collected by both
manual note-taking and tape-recording through a loud-speaker (hands-free) telephone. Interviewers explained that the taping procedure would serve to speed up the interview and that teachers’ identity would be concealed through the use of codes. Additionally, once the interviews were transcribed the tape would be erased. Respondents’ acknowledgement and agreement was sought prior to the commencement of taping with all respondents readily agreeing. Their agreement was noted on the interview schedule. This also enabled a more accurate collection of data and served to alleviate some of the concerns the researcher had regarding the amount of necessary editing which occurred throughout the interview. Interestingly although the teachers were busy and pressed for time, once they started relating their PD experiences it was easy to keep them talking. They frequently became animated and eager to share their perceptions and concerns with the interviewer.

**Self–Report Methods**

The data collected in this study were reliant on the teachers being honest in relating their perceptions and attitudes to professional development, and accurate in reporting the programs and sessions they had facilitated or in which they had participated. In an attempt to overcome potential hazards in the “self–report” aspects of this study, care was taken to inform the respondents at the outset that the information gathered was strictly confidential and their comments would not be traceable back to them in any way. Anonymity appeared to be a critical issue in teachers’ willingness to be involved and influenced their comfort level in discussing a subject that many perceived to be sensitive. Reassuring them of their “immunity to prosecution” was particularly important for a range of reasons. The beginning or new teachers contacted initially expressed concern or at the very least displayed wariness due to the fact that, in the Western Australian State Education system, all beginning or “temporary” teachers are subject to an annual assessment or “performance management appraisal” (Education Department of Western Australia, 2000). This appraisal relates to the teachers’ performance on five specific criteria eg., “planning and preparation”, “assessing and reporting on student outcomes”, “teaching skills”, “classroom management skills”, and “professional characteristics”. From these five criteria, a grade of satisfactory or unsatisfactory is determined. The appraisal is conducted by senior administrators and can affect temporary teachers’ re-
employment opportunities the following year. If inexperienced teachers perceived a possible threat to their report of satisfactory or unsatisfactory existed from involvement in this study, it may have caused them to supply a "coloured" or inaccurate account of their PD experiences or avoid participating in the study altogether. Experienced teachers exhibited similar reactions to the novices due to apprehension related to possible reprisals from the Education Department of Western Australia central administration. Examples were cited to the researcher of cases where "teachers had spoken out to the media or to the union" against the system and had been disciplined for contravening the "Corporate Loyalty" policy. These cases were related as reasons for non-involvement if confidentiality and anonymity couldn’t be guaranteed. The incentive of being given the opportunity to voice their opinions and address their concerns regarding PD was anticipated as increasing their interest in being involved, acceptance rate, and rapport. The interviewer stressed that data collected were to be compiled into a report to be presented to the state employer, professional associations and principals’ professional associations. Respondents were also asked if they would like a brief summary of the results with most replying in the affirmative.

Many researchers are critical of the nature of self-report information feeling it to be subject to contamination by social desirability and selective memory (Brief, Burke, George, Robinson, & Webster, 1988, in Howard, 1994; Spector, 1994). Howard’s amusing observation that ...

> it seems as if self-report-bashing might be an article of faith of some Scientific Apostle’s Creed, ‘I believe in good science; the empirical determination of theory choice, the control of extraneous variables, and the fallibility of self-report measures ...

...tends to reflect an underlying theme in current literature related to self report methodology (Howard, 1994, p.399). Although social desirability and selective memory aspects can be problems the researcher can minimise these by carefully designing the instrument to include validity checks and through appropriate interview techniques. As endorsement of this type of methodology, Howard (1994, pp.399-400) referred to a study where he and his colleague ...

> assessed the construct validity of self-report indices of various constructs (i.e., assertiveness, social skill and anxiety, teaching
ability, empathy) relative to various non-self report indices (eg.,
behavioural measures, role plays, significant-other reports, expert
judges ratings) of these same constructs.

His surprising was finding that the construct validity coefficients of self-reports were
actually superior to other forms of measurement. This was interesting considering the
sensitive nature of the indices where one may have expected respondents to be self-
conscious or possibly threatened and hence modify their answers in order to protect
themselves (Borg, 1987).

Spector (1994, p.390) examined what self-report measures indicated, and stated that,
from investigating the literature, there appeared to be “little criticism” with this
method in “providing a picture of how people feel about and view their jobs. They
also tell us about the inter-correlations among various feelings and perceptions.” He
indicated that this can “provide important insights and can be useful for deriving
hypotheses about how people react to jobs”. He added, however, that self-report
methods may be doubtful as an “indicator of the objective job environment” or
“conditions” that may be affected by such things as “respondent attitudes”,

Howard (1994) also went on to discuss his proposed rationale as to why researchers
generally denigrate self-report technique. He discussed the issue of possible
contamination of other more well-respected methods that pose as much of a threat to
the integrity of the validity of the results if ignored. Spector stated that “self-report
studies should not be automatically dismissed as being an inferior methodology to
others that might have been applied”. He cautioned researchers to be “clear where
conclusions based on the data presented end and where speculation begins” to avoid
overgeneralising and over-interpreting the results (Spector, 1994, p.391). This may
be misleading to the reader and result in loss of credibility in the study’s
methodology. Implementation of the self-report method was deemed appropriate in
this Doctoral study as it was investigating secondary high school teachers’
involvement in professional development, the type undertaken and their perceptions,
attitudes and motivations regarding professional development. This researcher has
also taken into account Spector’s comments concerning overgeneralising and over-
interpreting of results.
Reliability and Validity

Reliability and validity in interview methodology are remarkably intertwined. Kitwood (1977, in Cohen & Manion, 1994) in his critique of this form of methodology indicated that there was a “conflict ... between the traditional concepts of reliability and validity” where “increased reliability of the interview is brought about by greater control of its elements” and this was “at the cost of reduced validity” (p.282). Reliability was defined in Oppenheim (1992, p.144) as “the purity and consistency of a measure, to repeatability, to the probability of obtaining the same results again if the measure were to be duplicated” and by Wolf as “concerned with the precision of the measurement” (1993, p.125).

Validity is “concerned with whether an instrument is measuring what it is supposed to measure” (Wolf, 1993, p.125). If the data received did not answer the research questions then whether or not it had been reliably collected was immaterial. It also relates to the amount of bias in the method. Cohen & Manion, (1994, p.282) outlined sources of bias as “the characteristics of the interviewer, the characteristics of the respondent, and the substantive content of the questions”. They outlined the following ways of reducing bias:

- **careful formulation of questions so that the meaning is crystal clear**;
- **thorough training procedures so that an interviewer is more aware of the possible problems; probability sampling of respondents; and sometimes by matching interviewer characteristics with those of the sample being interviewed (p.282).**

While interviewer training was conducted and an interview schedule prepared in an endeavour to increase reliability and validity through uniformity or “control of its elements” a precarious balance was sought between these two aspects. Kitwood outlined the dilemma of achieving a balance between reliability and validity (1977, in Cohen & Manion, 1994, p.282). He indicated that in interviews if reliability was enhanced by “rationalization”, “validity” would decrease”. This was due to the nature of interviews being “interpersonal encounter[s]” with people in which they “are more likely to disclose aspects of themselves, their thoughts, their feelings and
values, than they would in a less human situation”. He continued stating that “it is necessary to generate a kind of conversation in which the ‘respondent’ feels at ease”. In other words, the distinctively human element in the interview is necessary to its “validity”. That said, “the more the interviewer becomes rational, calculating, and detached, the less likely the interview is to be perceived as a friendly transaction, and the more calculated the response also is likely to be” (p.282). Kitwood proposed that “a solution” to this tension between validity and reliability may “lie in the direction of a ‘judicious compromise’”.

According to Wolf (1993, p.130) “theoretically, any response rate that is less than one hundred percent of the selected sample can introduce bias into the results achieved from the testing”. Response rates varied in this study with 67% of rural schools and 42% from metropolitan senior high schools responding by having at least one teacher participating.

In this particular study, the instrument had been formulated from previously successful instruments (Baker & Showers, 1984; Baker, Scott, & Showers, 1997; Scott, 1997) and was piloted with a demographically similar group. This trial revealed aspects of the interview schedule that were possibly ambiguous and which were subsequently modified. An example of a modification made was when a question was asked if the teachers’ PD needs were related to his/her duties or to his/her curriculum area. This question had been designed to differentiate PD required for administrative or pastoral care roles as opposed to that of classroom teaching. This was overcome by providing explanatory information to the interviewer in order to clarify the intent of the question to the respondent. Additionally, a set of routine probes were developed to enable the interviewers to achieve as much uniformity as possible in an interview format that allowed considerable freedom to the respondent.

In this study, encouraging teachers to remember their PD activities over the preceding 18 months and list them with approximate dates and duration of the sessions was crucial. Interviews were commenced in the mid year, hence selecting an 18 month period captured the entire previous year and the six months of the year in which the interviews took place. As teachers were being asked to recall their PD activities having a distinct time frame from which to draw was important. The trial
revealed that teachers tended to recall activities in relation to school terms and holiday periods. An 18 month period was also determined to be the maximum period that teachers could reliably remember PD activities with sufficient clarity to supply the detail required for this study. Subsequent to teachers’ recitation of their PD activities, each session was individually discussed in-depth. In this section the effectiveness of the PD was rated using a 1-10 scale. This scale related to the teachers’ perception of effectiveness of the PD based upon their own particular criteria. An open-ended response section followed the scale to capture respondents’ individual set of criteria for rating effectiveness. As specified by Kerlinger (1970, in Cohen & Manion, 1994, p.277), open-ended sections provide a “frame of reference for respondents’ answers, but put a minimum of restraint on the answers and their expression”. With this advantage in mind, numerous open-ended questions were included and designed to yield information regarding teachers’ rationale behind their choice, perception of PD, the rating of effectiveness and the criteria on which teachers based their judgement.

The format of the semi-structured interview schedule enabled a form of internal check, for example, early in the interview respondents were asked to list their PD activities, providing information about the approximate date the PD was held, subject, format, duration of session, etc. Once this information had been compiled as comprehensively as respondents’ memory would allow, each PD was systematically examined with numerous opportunities for teachers to provide additional detail and report their perceptions. Information was cross-checked within the interview from the initial report to the second in-depth section which enabled teachers to clarify which PD they were discussing and ensure the accuracy of the account. Perceptions of the PD were compared with the effectiveness rating scales to ascertain if initial comments matched with the final comments and, if not, did this indicate a discrepancy or was it due to the respondent remembering an aspect previously forgotten that impacted either positively or negatively on the rating. This information was generally revealed in the open-ended sections. Results from the pilot were also compared with those of the main study.

Emphasis was placed on encouraging the teachers to talk at length about their PD experiences. Teachers frequently remembered other activities as the interview
progressed. These remembered PD activities were added into the data collection. Listing PD served as a sound memory aid. Teachers generally had little problem in remembering personal choice PD, however, in contrast some experienced difficulty in remembering in-house professional development.

A comparison was made of mandated PD from teachers at the same school. The results from this comparison generally tallied, although, as may be expected perceptions about the PD frequently reflected the individual’s perspective and personal level of satisfaction with the activity. Accounts of incidents in PD sessions were verified across various individual interviews. Interviewers also noted to the researcher in debriefing sessions how “typical” respondents’ accounts of the school environment and activities were from their own personal experience in schools.

Comparability within data was found across various categories. For example, Information Technology teachers regardless of age, experience level, and teaching situation expressed similar concerns over a range of issues. Although all of the teachers were in different schools they tended to raise the same issues and held very similar opinions and motivations in relation to professional development. Their concerns, however, differed considerably from the other subject area teachers within the sample.

With the interview method, much of the validity lies with reducing bias due to interviewer’s technique. With this in mind, a thorough review of the literature on potential problems and avenues of bias in interviews was conducted (Wallen, 1974; Jaeger, 1988; Borg & Gall, 1989; Gano-Phillips & Fincham, 1992; Oppenheim, 1992; Dinham, 1993b; Cohen & Manion, 1994; Gall, Borg, & Gall, 1996). Protracted interviewer training was undertaken incorporating the literature findings on avoiding bias and increasing reliability. Training commenced before the trial and continued through the pilot with frequent debriefing and reflection sessions until the interviews commenced. The interviewer training and preparation, in combination with a clear and well set out interview schedule served to promote uniformity in data collection which was demonstrated in the tape recordings.
As the respondents were reporting on their own PD activities and perceptions of these sessions, the aspect of validity was of major concern. Ideally to increase the validity of the study the researcher could have tracked teachers’ PD activities over the 18-month period, taking notes about each PD subsequent to participation. Alternatively the teachers could have been asked to keep a PD diary over the same period for increased detail. With fifty teachers averaging seven hours of PD per week per person the scope of this study precluded these validation techniques. Some teachers had maintained a record of their PD activities to fulfil school requirements of accountability for funding. Although some teachers chose to use these records as a memory aid during interviews, the process of maintaining records of PD activities was reported as a laborious task. Many had made short notes about their PD activities but even this was found to be oppressive considering their workload. Asking them to keep records on the information that was sought in the interviews from these reports is an onerous task requiring considerable commitment and goodwill on the part of the teachers. From the concern teachers expressed regarding the amount of time they were going to be spending engaged in the interviews teachers would unlikely have been willing to undertake these more time consuming processes.

The possibly negative aspect of bias due to self-report methods may be minimised by taking care in the formulation of the interview questions. This increases the chances that respondents will answer in an accurate manner, rather than supplying responses they felt were desired by the interviewer (Borg, 1987). A criticism may have been that teachers reported engaging in more PD than they actually had. Even so, those who had kept records (and used them as a memory aid) reported engaging in more sessions than those who did not. Professional development that was reported by those without records of their activities, most likely erred on the conservative side rather than being exaggerated.

As suggested in Miles and Huberman (1994) checks were made on the coding derived during initial data analysis. An independent associate who duplicated the development of coding process performed this check. The procedure yielded very similar coding themes.
Sampling

The target population for this study was the teaching staff of Government senior high schools (approximately 14,000 teachers). An Excel spreadsheet was developed from the EDWA website listing all senior high schools in this state. There were eighty-one senior high schools in the public education system (EDWA as employer). This population was categorised into rural and metropolitan senior high schools. The two groups were separately randomly sampled. Of the total population of twenty-three rural senior high schools, a sample of fifteen schools was drawn. From this sample of schools, twenty-two teachers responded from ten schools. This was a response rate of sixty-seven percent of rural schools in the study. Sizes of rural staff ranged from very small (approximately twenty-five) to large, (around one hundred and fifty teachers per school). The highest number of teachers responding from one school was eleven with the lowest being one, averaging about two teachers responding per school (excluding the school with eleven teachers responding). Using the same process, metropolitan schools were randomly sampled, with twenty-four schools selected out of a population of fifty-eight metropolitan senior high schools. Twenty eight teachers agreed to participate from the twenty-four selected schools. This was a response rate of forty-two percent from metropolitan schools. Although school staff sizes varied considerably, staff numbers were generally higher than rural schools.

In previous studies (Scott, 1997) a form of “snowball sampling” (word of mouth referrals in locating a cohort) was performed in locating past graduates (Cohen & Manion, 1994 p. 89; Gall et al., 1996, p. 234). From teachers’ initial reactions to calls in that previous study, difficulty was anticipated in contacting, inviting and encouraging teachers to participate without making personal contact with them in order to outline the study and answer questions regarding the time commitment and anonymity involved. Making an initial personal contact was in fact the most difficult aspect of conducting this research due to school principals performing a determined gatekeeper role (Webber, 1987).

Contacting Teachers in Schools

In previous years the Education Department of Western Australia (EDWA) have produced a document referred to as “Staffing and Schools”. This document,
published annually, supplied information about every school including teachers’ names and subject areas and readily facilitated teacher-to-teacher or “collegial” contact. With this document teachers could be directly contacted at school. Printing of the document was discontinued in 1996 and details proposed to be transferred to the EDWA website. The site was accessed but was found to be incomplete with little or no detail regarding individual teachers. Advice was sought from senior academics regarding the most productive and professional manner to gain access to teachers in the schools. The suggestion was made that support could be sought through principals.

Once the sample of schools was selected, a letter was sent to the Principal informing him/her of the study and inviting participation of their teaching staff (refer to Appendix C). The initial contact letter to principals outlined the researcher’s desire to have the opportunity to address the whole staff to outline the aims of the study and invite teachers’ participation. For remote rural schools this visit to schools was impossible so a request was made to obtain a list of the teachers’ names to facilitate a more personal phone call at school to outline the study and invite participation (refer to Appendix D).

Follow-up phone calls elicited a wide spectrum of reactions with warm support on one end to hostility on the other (for more detail refer to Appendix F). Overall, the use of follow-up phone calls was a sound strategy, in that many principals had not actually received or seen the researcher’s letter or vaguely recalled reading it but with the press of immediate business could not remember the import of the communication. This personal call allowed the researcher to restate the aims of the study, request an opportunity to address the staff and/or obtain a staff list to facilitate school contact. Approaching principals was considered appropriate, in terms of professional courtesy, and a mechanism to facilitate the research process and yet, in actuality, it was counterproductive to gaining entrée into the school. Principals tended to act as “gatekeepers” to the school (Webber, 1987, p.7).

Subsequent to the largely unsatisfactory response from principals, contact was made to a local District Office. The District Director was known to academics and was thought to be sympathetic to educational research having previously undertaken
further studies. This Director was most interested and helpful. When asked what was likely to be the most successful procedure, he/she recommended approximately six principals anticipated to be well disposed to research activities with a PD focus. These principals were contacted explaining that they had been recommended as interested and innovative leaders. One in this group of principals was particularly helpful and enthusiastic, assisting the researcher in every way possible. The complement of this group, while they would not hinder the researcher, also would not assist in facilitating the contact with their teachers.

In schools where principals agreed to allow the researcher to contact staff but were not prepared to provide a staff list, calls were made to each subject department. Where possible, Heads of Department (HOD) were contacted but this process was found to be relatively unsatisfactory as some HODs forgot or did not personally want to promote involvement in the study, hence response rates were low in these cases.

In some schools where staff lists were not made available, the Principal was prepared to allow the researcher to send information fliers/letters (refer to Appendix E) to the school for distribution to teachers. This was done but resulted in little response. Whether or not this material was distributed to teachers is not known.

As expected, where a staff list was made available which facilitated a personal contact to individual teachers, a higher response rate resulted. Teachers responded to a direct personal invitation rather than a generic “is anyone interested?” form of invitation. This personal invitation outlined that the final report was going to be placed before the employer and principals (although individual responses would be traceable) and this provided a considerable incentive for teachers to comment on their perspective on professional development.

Snowball sampling was conducted when school principals proved unwilling to “allow” the researcher to contact their teachers. Teachers were encouraged to discuss the study with their colleagues to ascertain further interest in participating. A few teachers recommended colleagues, friends and relations in other schools who may have been interested in “having their say”. Curiously most of these “referrals” were in sampled schools and when contacted agreed to be involved.
From a total of eighty-one public (state) senior high schools, a sample of thirty-nine schools were contacted. From the sample of schools, fifty teachers from twenty different schools agreed to participate in the study (22 teachers from rural and 28 teachers from metropolitan schools). More rural teachers initiated the contact with the researcher from brochures sent out to schools than metropolitan teachers.

**The Sample**

From a sample of 50 teachers who participated in this study, nearly all (49) were full-time with the one teacher who was part-time teaching 0.8 of a Full Time Equivalent (FTE) teaching load.

<table>
<thead>
<tr>
<th>Full Time Equivalent (FTE)</th>
<th>Number of respondents</th>
<th>Percentage (%) of total sample</th>
</tr>
</thead>
<tbody>
<tr>
<td>Full time</td>
<td>49</td>
<td>98</td>
</tr>
<tr>
<td>Part time</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>(0.8 FTE)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Table 6.1: Teachers in the sample: Proportion of teaching time**

One of the key research focuses was examining rural and metropolitan teachers’ perceptions related to professional development. Contact was made with both metropolitan and rural schools inviting teachers to become involved.

<table>
<thead>
<tr>
<th>Teaching situation</th>
<th>n of respondents</th>
<th>Percentage (%) of total sample</th>
</tr>
</thead>
<tbody>
<tr>
<td>Metropolitan</td>
<td>28</td>
<td>56</td>
</tr>
<tr>
<td>Rural</td>
<td>22</td>
<td>44</td>
</tr>
<tr>
<td>Total</td>
<td>50</td>
<td>100</td>
</tr>
</tbody>
</table>

**Table 6.2: Teachers' situation - Metropolitan and rural areas**

Fifty-one individuals were interviewed consisting of forty-nine teachers, one teaching principal and one principal. There were twenty-two rural teachers (44% of sample) and twenty-eight metropolitan teachers (56% of sample).
Age and Teaching Experience

Teachers' age-range frequency distributions were collated and compared with teachers' teaching situation.

<table>
<thead>
<tr>
<th>Teachers' Age Ranges (Years)</th>
<th>Rural Area</th>
<th>Metropolitan Area</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>f</td>
<td>P(%) of teachers in rural areas</td>
<td>f</td>
</tr>
<tr>
<td>20-29</td>
<td>12</td>
<td>55</td>
<td>4</td>
</tr>
<tr>
<td>30-39</td>
<td>6</td>
<td>27</td>
<td>6</td>
</tr>
<tr>
<td>40-49</td>
<td>2</td>
<td>9</td>
<td>12</td>
</tr>
<tr>
<td>50-59</td>
<td>2</td>
<td>9</td>
<td>6</td>
</tr>
<tr>
<td>Total</td>
<td>22</td>
<td>100</td>
<td>28</td>
</tr>
</tbody>
</table>

Table 6.3: Teachers' age ranges – compared with teaching situation

Over half (55%) of the rural teachers were in the 20-29 age-range in comparison to 14% in the metropolitan area. There were more rural teachers (27%) than metropolitan teachers (21%) in the 30-39 years of age-range. Teachers in the metropolitan area in the 40-49 age range represented forty nine percent of the sample whereas only two rural teachers (9%) were in this age range. Again there were fewer older teachers in rural sample with nine percent in the 50-59 age range in comparison to twenty-two percent of metropolitan teachers in the sample.

Teacher's experience levels or stages of career were examined in this study. These were grouped according to Huberman's (1992) stages of career.

<table>
<thead>
<tr>
<th>Years of Experience</th>
<th>f</th>
<th>P(%) of total sample</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt; 1</td>
<td>4</td>
<td>8</td>
</tr>
<tr>
<td>2-3</td>
<td>5</td>
<td>10</td>
</tr>
<tr>
<td>4-6</td>
<td>5</td>
<td>10</td>
</tr>
<tr>
<td>7-18</td>
<td>22</td>
<td>44</td>
</tr>
<tr>
<td>19-30</td>
<td>11</td>
<td>22</td>
</tr>
<tr>
<td>30 onwards</td>
<td>3</td>
<td>6</td>
</tr>
</tbody>
</table>

Table 6.4: Teachers in the sample: Distribution of years of experience

Four beginning teachers who were within their first year of teaching. Five teachers (10%) had between two to three years of teaching experience. Five teachers (10%) had between four to six years experience and twenty-two teachers (44%) with seven to eighteen years of experience. Eleven teachers (22%) had accrued between
nineteen to thirty years in teaching and three (6%) with thirty or more years of experience. In this final group the longest serving teacher had taught for thirty-three years.

**Gender**

<table>
<thead>
<tr>
<th>Gender</th>
<th>f</th>
<th>P(%) of total sample</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>29</td>
<td>58</td>
</tr>
<tr>
<td>Female</td>
<td>21</td>
<td>42</td>
</tr>
</tbody>
</table>

Table 6.5: Gender distribution in the sample

The majority of teachers in the sample were male (58%) and twenty-one teachers were females (42%). Nineteen of the males were teaching in the metropolitan area, ten in the rural areas. Twelve females were in the rural areas and nine in the metropolitan area.

**Teaching Duties and Promotional Status**

<table>
<thead>
<tr>
<th>Position</th>
<th>F</th>
<th>P(%) of total sample</th>
</tr>
</thead>
<tbody>
<tr>
<td>Superordinates (e.g., HOD, TIC)</td>
<td>14</td>
<td>28</td>
</tr>
<tr>
<td>Teacher and Other Duties (e.g., Yr/IT Co-ordinator)</td>
<td>15</td>
<td>30</td>
</tr>
<tr>
<td>Classroom Teacher</td>
<td>21</td>
<td>44</td>
</tr>
</tbody>
</table>

Table 6.6: Distribution of promotional positions and additional duties

Over a quarter (28%, n=14) of the sample were in promotional positions such as Head of Department (HOD) or Teacher in Charge (TIC) of departments or Learning Areas. This group included one senior administrator who was also teaching.

Just under a third of the sample (30%, n=15) were carrying out responsibilities in addition to teaching, such as, Year Co-ordinator, Information Technology (IT) Co-ordinator, IT Systems Administrator, School Planning Officer, Coach. The remainder of the sample (n=21) were classroom teachers who did not report undertaking additional roles (44% of the sample) although many of this group were undertaking considerable additional tasks such as the school newsletter.
**Instrumentation**

An intensive literature search on various forms of research methodology enabled the researcher to identify potential problem areas in the formulation of an instrument, sequencing and wording of questions, layout of the interview schedule and ethics. The interview schedule was semi-structured, with a combination of structured questions and open-ended sections providing teachers with opportunities to expand on their responses.

Clarification of research questions facilitated the formulation of a list of questions or issues that was anticipated to be answered or addressed by data collected in the study. Subsequent examination of methodological texts regarding question wording and layout shaped the initial attempts at the interview schedule. The types of questions that were avoided were:

1. multiple or double-barrelled ones, which create difficulty for respondents to effectively answer both components; as well, they create ambiguity in interpreting responses;
2. leading questions that tend to indicate a particular response is desired or expected by the interviewer, and
3. closed questions that can are answered with a “yes” or “no” with no further explanation given (especially when rich data is sought) (Merriam, 1998).

Review of research methods highlighted the importance of administration aspects involved in a survey and the potential errors and biases resulting from inattention to these “mundane” details (Borg, 1987; Oppenheim, 1992; Schmitt, 1994). The formulation of the instrument took a number of weeks before it was considered satisfactory to be trialed. A pilot study involving teachers was also conducted for further refinement of the instrument and interviewer technique.

**The Interview Schedule**

The interview schedule (refer to Appendix B) consisted of an extensive demographics section, including teacher’s:

- Name
- Teacher’s gender
• School name
• Teacher’s age (situated within a specified age-range)
• Position in school
• Number of years of teaching experience
• Teacher’s status (temporary/permanent)
• Full-time/part-time
  
  If part-time, what fraction of a full time equivalent (FTE)
• School situation (rural/metropolitan)

If he/she was in metropolitan area, whether they had taught in the rural area and if so, how long ago in the past (and vice versa)
• Qualification/s
• Subjects currently teaching
• Whether the subjects being taught represented new or increased preparation and why.

**Professional Development Activities**

At the beginning of the interview teachers were provided a broad definition of PD with an extensive list of possible options. They were also invited to include activities and experiences they felt constituted professional growth opportunities. Teachers were asked to list all PD in which they had engaged over the preceding eighteen months to the time of the interview. Once an overall list had been compiled each PD session/program was examined in detail. Information gathered for each PD cited included:

• The name or title of the session (if known)
• the subject/content,
• when in the 18-month period the PD had occurred,
• number of hours involved,
• whether the session was in-school time or out-of-hours,
• format (eg., lecture, workshop, discussion, demonstrations, practice, small group work or a mix etc),
• if the format was a combination of various modes, how long was spent engaged in each activity,
whether the PD was mandated by a superior, personal choice of the teacher or he/she felt obligated to attend,

in each case (mandated, personal choice and obligated) the rationale for attendance was established.

(If the PD was mandated, the teacher's perception of why he/she had been required to participate was ascertained; and if it was indicated he/she felt obliged to attend, the rationale behind this perception was probed.)

an effectiveness rating from 1 to 10 with one being ineffective and ten being highly effective (in the teacher's perspective),

teacher's rationale for rating the PD as they had and his/her criteria for effectiveness ascertained, and

the provider of the PD and the source of information about the activity.

The instrument layout was identical for each cited professional development. Each PD experience was examined in depth in separate sections to enable the interviewer to take notes regardless of the number of separate sessions. Each program/session cited by respondents was numbered to enable the researcher to identify which PD from the initial list was being examined in detail.

**Semi-Structured Sections**

In the semi-structured sections of the interview schedule teachers' future PD requirements in relation to their subject/content area and their duties (if they had additional responsibilities within the school) were ascertained.

In the year preceding the interviews, EDWA trialled a PD process whereby schools could "trade off" the final two and one half days of the school year by undertaking the equivalent number of hours of PD (out of school hours). Traditionally, the last two and one half days of the school year is a period when teachers clean up classrooms and work areas, organise and plan for the following year, and socialise with colleagues including farewell tributes to staff transferring to other schools. Some teachers in the sample indicated their school had opted to participate in this EDWA trial. In these cases the PD sessions were examined in relation to content,
format, effectiveness and teachers’ perception of whether the trial process had been worthwhile.

Additionally, teachers were asked if they knew what the funding arrangements were for PD in their school and how they felt about financially contributing to their ongoing professional growth. They were also asked if they had facilitated or provided PD for colleagues and if so, it was examined in detail and their rationale for conducting it was ascertained. Teachers in the rural areas were asked about their perception of PD in their rural situations. They were asked if any difference existed in availability, quality or any other factors affecting PD of teachers in the rural areas that they would like to see addressed. The concluding open-ended section provided teachers with the opportunity to discuss any other issues related to professional development, that they felt should be addressed.

**Attitude Scales**

Key aspects of this study were teachers’ perceptions and attitudes towards the PD in which they had participated or conducted. Teachers were asked to rate the “effectiveness” of the PD on a scale of 1 to 10 with 1 = ineffective and 10 = highly effective. To capture the teacher’s criteria for evaluating effectiveness, an open-ended section immediately followed the scale. This was in order to increase the validity of the scale (validity - the degree to which the scale measures what it is supposed to measure) (Oppenheim, 1992). Teachers’ criteria were likely to vary depending on personal beliefs and other variables (eg., previous education, training, experiences) therefore it was imperative to provide them with the opportunity to clarify their criteria and why they had rated the PD as they had. The researcher separated responses into two main groups, that is, effective PD – rated 6-10 on the effectiveness scale while 1-5 was considered ineffective. The qualitative comments endorsed this categorisation with less favourable comments linked with a rating of 1-5 and more favourable comments with a rating of 6-10.

Although teachers’ attitudes may not necessarily be linear and variations may occur in intensity, scales do make it easier to measure this complex area and have the advantage of respondents placing themselves on the continuum and then explaining
their response, highlighting specific criteria. As stated in Oppenheim (1992 p.206) we must examine “our purpose in building a scale. It is one thing to require a purely descriptive device, which can roughly divide our sample into several groups with regard to a given attitude, but quite another to ask for a technique that will predict people’s actions at a time in the future”. The purpose in this case is the former where the scales were being used as an indicator of teachers’ perceptions of effectiveness of the PD, and as such, should have been adequate to meet the requirements.

The researcher was extremely conscious of establishing rapport with teachers in order to maintain their motivation to continue with the interview process. Considering the length of time required to complete an interview this was an important concern. Interviews ranged from a half hour to three and one half hours depending on the number of PD sessions/programs the teacher had reported. The average was between one and a half to two hours. The wording of the questions was presented in an informal and conversational manner. The pilot study served to isolate those questions that may have required further clarification by the respondent and standard explanatory phrases were included where necessary. During the interviews, effort was made by interviewers to deliver the questions in as neutral a manner as possible, while still encouraging the respondent to continue talking. The interview schedule was formulated in such a way that the wording of the open ended questions meant that the respondent could take a positive or negative stance without feeling that either was particularly sought after by the interviewers.

**Procedure**

**Selection of Interviewers**

A senior undergraduate class of preservice teachers and friends who were qualified teachers were approached by the researcher and asked if any would be interested in participating as interviewers. Two student teachers and one qualified teacher were selected from this group. These would-be interviewers were, interviewed by the researcher, to ascertain their interpersonal and communication skill level. All displayed a friendly, pleasant personality with a conversational manner. All were prepared to commit themselves to the training and debriefing sessions, trial, pilot and actual study. Although we can’t state definitively that the interviewers had to be
teachers or about to graduate as teachers, our assumption is that teachers in the study would expect the interviewer to have a shared understanding of the situations and culture they were discussing. Rapport could have been negatively affected if the respondents had had to keep explaining what they meant by various educational jargon, situations, and system-based structures.

Feedback from the teachers in the trial and pilot study indicated the interviewers had established a good rapport through initial small talk and interest in the information required under the demographics section. The demographic questions had been asked in a conversational manner so that respondents frequently did not realise that the demographic information had actually been collected. These sections actually facilitated conversation and established rapport between interviewer and interviewee.

**Training of Interviewers**

Once interviewers had been selected the researcher provided them with required readings on interviewing techniques in Gall and Borg (1996, pp.311-319), which were discussed in training sessions. This preparation was prior to commencing the training sessions and ensured a shared, uniform understanding of possible sources of bias, both systematic and systematic. Four training sessions were conducted.

**Session 1**

This first session was a “round-robin” (Bennett, Rolheiser-Bennett, & Stevahn, 1991) discussion of the reading with behaviours and practices related to introducing or limiting bias. Additionally, interviewer’s interaction style with respondents was included. An “inductive” (Joyce, Weil, & Calhoun, 2000) activity was conducted by the researcher, where the members of the team were asked to identify likely positive and negative communication and interaction behaviours (by an interviewer) that may occur during an interview with further brainstorming on how to avoid these. “Being respectful, non-judgemental and non-threatening”, expressing interest and concern were characteristics identified as crucial to successful interviewing (Merriam, 1998, p.85). The instrument was distributed to each interviewer for pre-reading and familiarisation.
**Session 2**

In the second session the team of interviewers discussed and clarified the intent of the questions on the interview schedule with the researcher. The instrument was systematically examined with interviewing techniques described in relation to each of the sections of the schedule. In preparation for the third session the researcher formulated two simulated cases of PD histories.

**Session 3**

The third session took the form of a role-play where interviewers paired up with the two different sets of simulated PD data. Sitting back-to-back one of the pair assumed the role of respondent (with the simulated data) and the other the interviewer. The researcher oversaw the simulations, which were videotaped, the pairs rotated turns, with the one acting as prompter and observer. Videotaping was implemented for subsequent reflection and problem-solving. After the “virtual interview” the observers made suggestions while the participants reflected on how they felt and how they would modify their technique. The videos were also utilised for analysis of interviewer inter-reliability.

**Session 4**

The fourth meeting was for debriefing and reflecting on the performance using the videos. The pairs swapped partners from the original session and set up in two separate offices. An interview was conducted with the tape recorder and speaker-phone, simulating the actual equipment set-up. At the conclusion of the session the pairs reassembled to debrief and resolve problems encountered with the equipment. This process was repeated from home-to-home without any interference problems. Prior to the conclusion of these training sessions a discussion of the meaning of confidentiality and anonymity ensued with the researcher clarifying both these aspects outlining how the data was to be handled, physically stored and the ethical limitation of discussions regarding data with friends or colleagues.

This process of training sessions established an excellent rapport between the team members and the researcher and increased the confidence of all the interviewers. They all expressed a willingness and readiness to initiate the trial. A document
outlining the aim of the trial with a checklist of points to check with the teachers was distributed prior to the conclusion of the final training session. The team members reported back for final debriefing session after running their trials.

Throughout the training period the researcher engaged in contacting schools and teachers, inviting participation in the study.

**Trial and Pilot Study**

The interview schedule was initially trialled with postgraduate students who were teachers similar to those of the respondents. During the trial, the interviews were conducted over the telephone in an identical manner to that of the pilot and major study. Suggestions were discussed regarding interviewer technique and clarifications concerning question sequencing and intent. Modifications were made to increase reliability and validity in the study.

Eight teachers who were friends/acquaintances, family members or faculty staff were interviewed as a pilot study. This number enabled all four interviewers to each undertake two interviews prior to the main interviews commencing. The interviewers contacted teachers by telephone and went through the introductory dialogue that had been established in the training sessions. A mutually suitable time was established. Generally preferred interview times were during the early evening, usually commencing at 7.30-8.00 pm in the evening when respondents could relax and chat without interruption from colleagues, family members or other commitments. The interviewers informed the teachers that the researcher was likely to seek feedback about the interviewers’ technique for final debriefing prior to the interviews commencing. The respondents were also asked to provide feedback on the question wording, and the process. They were asked to consider the clarity of intent and delivery of questions and any other issues that may be considered for inclusion. These were noted by the interviewer and funneled back to the researcher for continuing refinement of instrument and technique.

Interviewers were provided with a list from the researcher of teachers to contact to initiate setting up appointments. Interviewers were encouraged to inquire from the
teachers being interviewed if there were others who were likely to be interested in “having their say” in their department within the sampled school. This “snowball-like” process assisted in the contacting of teachers (Cohen & Manion, 1994, p.89; Gall, Borg, & Gall, 1996, p.234).

Telephone Interviews

Subsequent to teachers’ expression of interest in participating in the study the researcher indicated that an interviewer would be contacting the teacher to make an appointment for a mutually suitable time to the teacher and the interviewer. Interested teachers’ names were passed to interviewers for follow-up. The interviewers generally made appointments directly after school or in the evenings. Conducting interviews during the school day was discouraged to avoid interfering with teachers’ time allocation for Duties Other Than Teaching (DOTT) and placing additional pressure on these busy teachers. Interviews were only conducted during school time when teachers expressly stated they wanted the interview at a particular time. Interviewers found that teachers became more voluble and relaxed when interviews were conducted in the evening when school and family commitments had been met.

At the commencement of the interview the interviewer utilised the demographic section of the schedule to establish rapport with the teachers by encouraging them to talk about their current work situation. This was quite successful in setting the respondents at ease and enabled them to perceive the interviewer as a person who was also a teacher and was interested in them as an individual. It also provided background information concerning the culture of the workplace within which the teachers were working. Once the respondents appeared comfortable the interviewer reminded them of the purpose of the study and the interview question schedule was initiated. At the conclusion of the interview, the final question was open-ended and provided respondents with the opportunity to discuss any issue related to PD they felt needed to be examined. It also provided the interviewer the freedom to return to any comments made by the teachers earlier in the interview that could deliver an interesting insight or that required further clarification. Teachers frequently utilised this section to discuss their views of the educational system, culture and trends they
perceived emerging. It also enabled the interviewer to conclude the interview on a less formal tone and thank them for their patience and willingness to be involved. At the conclusion teachers were reminded that their comments would not be traceable back to them and they had complete confidentiality and anonymity (Cohen & Manion, 1994, pp.366-368; Gall et al., 1996, pp.91-93).

Throughout the interview the interviewer made notes onto the interview schedule of the information the respondent provided. This manual note-taking enabled the interviewer to keep track of the PD that had been covered in-depth and those yet to be discussed. They also were encouraged to make notes of points to further explore when discussing each specific professional development activity. They jotted down asides or incidental reflections made by the teachers, which were worth exploring in the open-ended response section at the end of the interview. These notes also assisted the interviewer to keep track of movement through the interview instrument. At the conclusion of the interview the interviewer would record impressions of the respondent, making note of any particular issues the respondent reiterated or became particular enthused or agitated about or emphasised. The interviewer's reflections were recorded on the end of the tapes for transcription with the interview. The interview schedule, including the interviewer's notes, were given to the typist to assist in the transcription process.

The interviewers reported a most cooperative attitude on the part of the respondents, with the only constraint being a concern about the amount of time necessary to complete the interview. All of the teachers expressed feeling pressed for time not only in their teaching duties but also in their home lives. This common concern was alleviated by the assurance that they could discontinue the interview at any time or break it up into two or more time slots that better fitted into their schedule. The time issue did not appear to overly worry any of the respondents once they commenced talking about their classroom activities. Many were pleased to be given the opportunity for sharing their experiences, and proceeded to become so engrossed in relating their activities that it was often difficult to conclude the interview, endorsing Merriam's observations that "participants usually enjoy sharing their expertise with an interested and sympathetic listener" (Merriam, 1998, p.85). Many stated they felt relieved to discuss issues that were troubling or frustrating them related to
professional development, demonstrating that interviews did indeed have a “cathartic” effect as described by Dinham (1993b, p.25). Many indicated that this had been the first time anyone had expressed a desire to listen to their opinion or value their judgement since they had commenced their teaching career.

Data Collection and Analysis

Timing of Interviews
Interviews commenced in April with the bulk of interviews occurring between May through October and concluding with the last two interviews in November. Interviews were conducted during the latter half of one school year. This extended data collection period was due to the limited amount of time available to teachers, with many requesting interviews during holiday periods to limit any interference with their school duties. Information was sought on PD undertaken in the previous year through until the time of the interview (from January to December and up to July the following year). The researcher quarantined any PD undertaken outside a consistent eighteen-month period (equating to sixty working weeks). There were a few exceptions to the eighteen-month data capture. One of the exceptions was beginning teachers who had commenced in the January and were interviewed in the May/June period therefore having approximately four to five months of teaching experience to discuss. Another teacher had returned from leave in the July of the previous year and was interviewed in the October of the following year.

Transcription
Advice from other researchers who had undertaken transcription of interviews and the research literature (Gall et al., 1996) indicated that for each one-hour of taped dialogue it would take approximately four hours to transcribe. This approximation was an accurate representation of the time involved. The data was fully transcribed “word-for-word” with descriptions of any emotion exhibited by the respondent with the dialogue (e.g., laughing, sarcastically, hesitantly). When necessary during the transcription process, the researcher sat with the typist, listening to the tapes and interpreted the dialogue for her to type in order to facilitate the process.
Analysis of Qualitative Data – The Process

The analysis of the data was a continual process from the period of initially conducting the interviews to the final write-up stage. Throughout the interviews the interviewers were identifying possible trends and making notes to examine likely trends or common themes when interviews were completed. When the interview process was over, the researcher listened without interruption to each audio recording in order to get an overall perspective of the teacher’s interests, concerns and priorities regarding professional development. Once transcription was completed, interview recordings were played while the researcher read the transcripts and any typing errors or misunderstanding of jargon etcetera, were corrected on the Word computer files. While reading, listening and correcting, the researcher simultaneously maintained a secondary Word document in the background in which likely coding themes or commonalities were noted for continued checking. When codes had been formulated from one interview, an independent party was requested to read and develop a set of codes. These two sets of codes were reviewed and were found to be comparable.

Likely coding themes were examined and numerous similar themes re-examined for combination or clarification into additional categories. Subsequent to each interview review the researcher wrote a summary of her own perspective on each individual teacher’s interview. In this overall perspective she noted respondents’ preferences in professional development, any irritations/frustrations expressed, overall pedagogical or philosophical perspective elucidated, insights they expressed regarding how PD should be arranged, provided or funded. She also noted emotion related to various topics raised and attempted to define the rationale for the emotion from the comments made by the teacher. Additionally, the interviewers’ comments were also merged if similar, compared if different, and/or generally examined at this time. Coding themes were also examined for further additions or refinements.

As the coding, groupings, and trends started to emerge, direct and relevant quotes were copied into another Word document under themes. All comments and quotes had a string of identifier codes attached to ensure that it could be accurately traced back to the respondent. The research questions were reviewed and the qualitative
comments and interviewers’ perspectives were grouped into two major categories, that of rural and metropolitan teachers.

In examining data from a particular question or cluster of questions the researcher used the “clipboard” facility in Microsoft Word, which enabled twelve separate items to be copied and pasted into another document (refer to Figure 6.1). The additional advantage this facility has over the previous “spike” facility was that the copied documents could be pasted into the new document in a different order to that copied. The clipboard also has labels attached to each copy (usually the first line of text is the label) to assist the user to identify which copy is in which location.

![Clipboard (11 of 12)](image)

**Figure 6.1: MS Word clipboard facility for multiple copying.**

Following the statistical data analysis, documents that contained teachers’ key comments under coding themes were grouped into the categories indicated by the research questions. These were types of professional development, themes of PD (eg., technology, curriculum framework, managing student behaviour etc), perceptions of choice (eg., personal choice, mandated, and obligated), rural and metropolitan teachers’ issues, groupings according to career phases, gender, and culture or environment. Culture was examined in discussions related to school, or educational environment, relationships with colleagues and superiors, and conditions and processes within the school and educational system. Frequently when examining a new category the researcher identified respondents who appeared to fit into a particular category and reviewed their entire interview for further information and to check that their perspectives were being reported accurately. Following this grouping and reviewing process the researcher summarised the information discussed in the comments, which was then integrated with the quantitative data.
When analysing a particular subject, a list of words that were used by respondents when discussing the topic was compiled. This set of words facilitated searches. Interviews were searched using the “find” facility in Microsoft Word utilising all listed options. Using a “find” facility is not a foolproof mechanism. Frequently a teacher referred to a topic or issue and yet the “searching” facility did not identify or locate the comment. This was because the teacher had phrased the comment in an unusual or unexpected manner. The other powerful tool in this qualitative study, apart from the categorising documents, was the researchers’ familiarity with the data. Subsequent to numerous full readings, classification processes and “search and find” procedures the researcher became skilled at locating specific information from among the 50 transcriptions.

A strategy utilised to assist in quantifying coded themes was to colour code the themes and measure the frequency of the colour in the document (refer to Figure 6.2). In this strategy the researcher compiled a list of comments within a certain category. The comments were then read through and where a particular comment reflected a coded theme the colour that was allocated to that code was “paintbrushed” over the comment (refer to Figure 6.2). Ensuring that a particular colour was only used once in a respondent’s comment or quote was important as some teachers when enthused reiterated a similar comment a number of times. This was highly effective as the colour was easily discernable in contrast with the black text and in long documents the search facility could be used to “go to” or “find” each time the colour appears in the body of the text.

At the time of writing up the results, summaries within documents addressing particular categories were used as a basis for explaining the qualitative data. The quantitative results were integrated with the qualitative commentaries. When direct quotes were used, these were “representative” of the meaning expressed by many respondents. Some direct quotes were utilised to demonstrate a continuum of reactions, comments, perceptions etc. When a range was to be demonstrated comments that again were “representative” of the end of the scale were selected.
Analysis of quantitative data

A Microsoft Access relational database was set-up to assist in analysis of these data. This database was established with forms for data entry which had explanatory sentences attached to each input site enabling the researcher to track what data were being entered into each category (refer to Figure 6.3). This acted as an accuracy check, particularly as data could not always be entered in one sequence until completion. Additionally, it was an important feature as data on one topic were frequently spread throughout the interview with the many open-ended components distributed across the interview schedule so it was crucial to keep track of where data were entered. As the researcher combed the hardcopy document for coding and statistical data, further qualitative comments were identified and copied into the relevant sections in the qualitative data Word documents. This combined qualitative and quantitative analysis process was slow and methodical but was more efficient than attempting to isolate qualitative data from the quantitative and processing separately. This was essential for this study as the two forms of data were thoroughly intertwined.

The interview instrument was divided into separate forms. Each PD program had its own form. Therefore all data for the first PD for every respondent was contained in
one table. Demographic information on respondents was in another table and questions related to rural teachers’ issues in another. Questions that stood alone with responses of a considerable size or multiple possible responses, were placed into separate tables. Some questions were pertaining to one PD process or were related to other questions, hence these responses were grouped into another table (e.g., PD needs [now & future] Q29-31). Although using Access was satisfactory in examining each question for all respondents it was not able to handle the complex relational permutations that were desired in comparing and contrasting all or some respondents’ data across more than one aspect of the interview schedule. Additionally, Access was somewhat limited in being able to relate the data in all PD tables and time taken to provide information was too long. As a result it was decided to import the data into SPSS in order to carry out the statistical analysis required. SPSS was a more powerful package that had the capacity to compute multiple sets of data simultaneously.

These data sets were imported into SPSS and professional advice sought to develop a looping syntax to obtain specific data from each PD set. Once this form of SPSS syntax was demonstrated it was relatively straightforward to write similar syntax for
additional information required from individual PD sessions/programs for each respondent.

Professional development was categorised into job-embedded, job-related, credential-orientated, professional association, self-directed, professional reading modes according to guidelines in the literature (Joyce et al, 1975, in Gall et al., 1996 - For more detailed information about these categories and final coding refer to Appendix G). The syntax was written first to identify the category (eg., job-embedded mode) and then to add the hours reported in that mode. This was repeated for the other modes. A similar looping syntax procedure was used for personal choice, mandated and obligated PD which were categories specified by respondents. Other information obtained in this manner was the average effectiveness ratings for these types of PD, hours engaged in various themes of PD such as information technology, curriculum improvement, managing student behaviour etc.

Descriptive statistics such as mean, mode, standard deviation, and frequencies were the most common statistical analysis utilised. A number of manual checks were performed by first copying data columns from SPSS into Excel and manually performing selected functions, and second, by checking through the forms in Access and manually calculating the statistics. These checks were performed periodically throughout the statistical analysis to ensure that the data remained reliable and consistent with the qualitative data reported.

Quantitative data was generated for the composite sample and rural and metropolitan teachers. When examining teachers’ career phase or experience level it initially appeared that there had been a slightly different grouping than Huberman’s (1992) categories emerging. Huberman’s categories were:

- 0-1 years “within the first year of teaching”,
- 2-3 years’ experience who were at the “survival and discovery” stage of their career,
- 4-6 years’ experience and were at the “stabilization” phase,
- 7-18 years’ experience who were either at the “experimentation/activism” or were “stock-taking” phase,
• 19-30 years’ experience and were at a “serenity” or “conservatism” phase, and

• 30 years or onwards and were experiencing “disengagement”


Alternative career phase categories to those of Huberman’s were checked both in the statistics and in the qualitative data and were 0-5 years’ experience, 6-15 years’ experience, 16-19 years’ experience, and 20 onwards. These categories did not reveal significant differences in perception from those of Huberman’s categories, which were found to be more appropriate (refer to Results - Table 8.1). However, the first two and last two of Huberman’s categories were collapsed together as insufficient numbers of respondents existed in the first and last to be statistically viable (minimum of 5 in each cell). The revised categories used in this study were 0-3 years’ experience, 4-6 years’ experience, 7-18 years’ experience, and 19 years and onwards (refer to Results - Table 8.2). In the qualitative data sections the data were set out with the comments of respondents with the least years of experience first to those with the most. In the first category of 0-3 years a difference in PD choices, preferences and perceptions was revealed in the beginning teachers.

Gender was examined statistically by sorting SPSS data according to cases but this yielded little statistical discrimination. However, differences in perceptions were found in the qualitative data.

Excel was used in quantifying some of the qualitative data. For example, teachers were asked if they knew what their PD allowance was, and if so, what it was. These were compiled in Excel and an average calculated. The qualitative data focusing on funding was more revealing than the statistical frequencies.

**Categorising and Coding**

**Types of professional development**

Categorising data on the types of PD proved to be difficult as it was extensive and ranged across many aspects. Various definitions of themes and coding possibilities were revealed from the literature. One of the ways to examine the data was using categories that related to the purpose of the PD such as information delivery on
specific policies or bureaucratic processes, skill in a particular strategy or process, and/or knowledge in a specific subject. Another categorisation was based upon choice - whether the PD was mandated or "top-down" provided professional development, or personally chosen from a range of providers. The Gall (Gall, Renchler, Haisley, Baker, & Perez, 1985) study documented a variety of categories that were first suggested by Joyce and associates (1975 in (Gall et al., 1985) that related to types of professional development. These categories included, Job-embedded, Job-related, Credential-Orientated, Professional Association-related, Self-directed modes. For a detailed explanation of these categories please refer to Appendix G.

Gall and associates further grouped the above categories under four main purposes:

1. inservice PD corresponding to self-directed mode and professional association mode;
2. inservice for credentialing relating directly to credential-orientated mode;
3. inservice for new teachers for the purpose of induction (helping them to adjust to fulltime teaching and learning new skills not covered in preservice educational programs);
4. inservice for school improvement which they corresponded to job-embedded and job-related modes.

These latter four categories appeared to be too limiting for this study therefore the categories from the Joyce and associates study (Gall et al., 1985) were utilised as an initial categorisation system. An additional category was formulated that developed from the results of the pilot conducted within this study. The findings of the pilot indicated that a separate category for professional reading was necessary in order to cater for the broader view of reading and/or research.

Results from the pilot indicated that teachers were involved in a wider range of "professional reading" activities that did not neatly fit into the "traditional" professional reading category. A couple of examples of how professional reading has altered from earlier studies was that teachers reported time spent browsing the Internet for likely sites of educational interest for both personal knowledge and classroom use, perusing catalogues for resource material, and selecting music to be
used in teaching. Gall’s (1985) study reported that the fourth category of “school improvement” PD correlated strongly with Job-embedded and Job-related modes. This too appeared to be the case in this current study. An alternative categorisation of the data was into three main categories that related to teachers’ perception of choice of professional development. The first was “Personal Choice”, the second was “Mandated” PD that were provided by the employer and lastly PD the teachers indicated feeling obliged to attend. The range of PD offered by numerous providers was considerable in this study. For a list of sources of PD please refer to Appendix H.

**Teachers’ Rationale for Choice**

Qualitative data were examined to determine what motivated teachers to undertake professional development. The reasons varied considerably but trends in rationale did emerge. The main reasons were identified as the PD was likely to …

- interest them or their students,
- be directly relevant to their teaching by increasing their content knowledge or skills,
- be relevant to their position/duties by increasing their related knowledge or skills,
- enable them to network with colleagues,
- provide them with resources or the opportunity to share resources with colleagues,
- provide opportunities to moderate their teaching, assessments, and resources with colleagues,
- provide opportunities for career advancement,
- provide opportunities to have input into school decisions,
- provide opportunities for personal development in other aspects of their lives.

For specific detail regarding the coding categories please refer to Appendix G.

**Teachers’ Perception of the “Rationales for Choice” - Mandated PD**

Teachers were asked to provide their perception of the reason they had been required to participate in job-embedded or job-related PD (frequently specified as mandated) programs/sessions. These data revealed an insight into teachers’ views of the
rationale underlying mandated and/or obligated professional development. These categories largely encompassed centrally-governed EDWA provided or required professional development. The responses included:

- Political agenda - there was a political agenda underlying the professional development;
- Reform/change - related to educational reform/change policies, teachers needed to keep up-to-date with changes occurring;
- Administration required - teachers were unsure of the reason behind these PD but knew that their administration was requiring their participation;
- Information delivery - there was information that was necessary for teachers to know about;
- Solve problem – there was a specific concern or problem, particularly related to the school, that teachers needed to be informed about or have input into solving.

For more specific detail regarding these coding categories please refer to Appendix G.

**Teachers’ Perceptions of Professional Development Effectiveness.**

Teachers were asked about the criteria they had used to judge the effectiveness of the PD activities in which they reported participating. As may have been expected the criteria tended to align with the categories they had described as the rationale for choosing the professional development. Respondents frequently outlined further additional criteria for their satisfaction or dissatisfaction with the professional development. The three main criteria related to the Quality of the Presenter, the PD Content, and the PD Format. A brief outline of these categories are listed below (for an expanded explanation please refer to Appendix G):

- Quality of the Presenter – (positive or negative) included knowledge, credibility, group facilitation skills, and public speaking abilities;
- PD Content – (Information) – what was sought was irrelevant, inadequate, insufficient, or inaccurate;
  (Teacher Expectations) – the PD did not meet the teacher’s expectations. It was not what was advertised, was a repeat session of one the teacher had
already undertaken, the teacher already knew the information or had the
required skills and therefore did not experience an increase in expertise, or
the presenter was not able to provide expert assistance;
(Non-Skill) – teaching or subject specific skills were not obtained as a result
of the PD;
• PD Format – (Boring) did not vary, was not matched to the information/skills
being covered;
(Wasted Time) – time was wasted in the PD, information/skills covered did
not represent new learning;
(venue) – the venue was uncomfortable or unsuitable for the PD.

**NUD.IST**

When deciding how to proceed with analysing the qualitative data from interviews,
using a qualitative data analysis package such as QSR NUD.IST (Qualitative
Solutions and Research, 1995) was considered. QSR NUD.IST was utilised in a
previous study (Scott, 1997) with limited success. The data in that previous study was
successfully entered and the hierarchical indexing system was formulated and
established. Initial analysis was performed. However, continuing the qualitative
analysis using the NUD.IST software became too difficult and time consuming due to
a complicated computer hardware and software problem. The analysis was completed
using annotations, bookmarks and spike facilities of Word for Windows 7.0 word
processing package. The initial NUD.IST results from which a “tree” was developed
were compared to the word processing results and were found to be comparable. Due
to these past experiences with QSR NUD.IST coupled with the increased complexity
required with SPSS and utilising EndNote programs this researcher decided to use a
multifaceted approach with Microsoft Office programs such as Word 98, Excel,
Access for qualitative data analysis and SPSS for quantitative data. Microsoft Word
in recent years has become so sophisticated with clipboard facilities (which replaced
the need for spike macros) enabling multiple copying, annotations, colour coding,
and search/find facilities, that qualitative data analysis was easy and enjoyable. An
advantage of using this multiple program approach as opposed to utilising QSR
NUD.IST was that the researcher stayed connected to the data.
**EndNote**

In the initial stages of this PhD study the university librarian recommended utilising a database program for storing references to facilitate literature organisation. This program was the EndNote 3.0 Bibliographies Made Easy program. Throughout the literature review and writing-up process in this study, all literature references, notes and useful quotes were collected and entered into multiple EndNote libraries representing various subject themes involved in this research. This was not a difficult process and was facilitated if references were downloaded from academic databases on-line. If the labels from the various categories of information were saved with the entry the entire reference could be entered immediately into EndNote without the researcher typing into the various fields. During write up when a citation was required the researcher copied the reference from the relevant EndNote library and pasted it into the document. When formatted, the references emerged in-text in the correct style (selected by the researcher eg., APA, Harvard etc) and a complete bibliography section was constructed at the conclusion of the chapter/document. This program was remarkably easy to understand and user friendly. In-text references could be modified to suit a variety of requirements, for example the reference when copied is dropped into the document as follows … [Merriam, 1998 #39]. However, if required to quote from a researcher referred to by Merriam, this reference can be altered simply by typing within the brackets without disrupting the reference eg., [Patton, 1990, p.278 in [Merriam, 1998 #39] or as Patton states …. in [Merriam, 1998 #39].

**Ethical Considerations**

The researcher was particularly aware of ethical issues in this study, especially as teachers who agreed to become involved were so obliging and voluble. Anonymity through coding and supplying a summary following the analysis of results was promised to these teachers. Not only was it important to carry through with the promise made (that is, anonymity through coding and supplying a summary following the analysis of results) but also to discern incidental implications for teachers from their comments about their activities, perception of PD and of their administration and employer.
Some areas that could have been perceived as “sensitive” were in teachers’ discussions related to:

- the implementation of policy and the impact on themselves and their colleagues;
- observations, interactions and perceptions of superiors and the employer;
- observations of school and educational system-wide culture and collegial relationships;
- reflections of personal pedagogical philosophies and how these matched with the current educational system realities.

Respondents’ names were masked through the use of codes. Tapes from interviews only displayed the codes and once full transcripts were made from the recordings, the tapes were locked in a cabinet until data analysis was completed and then destroyed. The transcripts were also kept secured. Computer data files were password protected with the researcher only having access to all files.

During writing up of qualitative data, the researcher removed gender pronouns such as he, she, him, her etc and used an androgenous combination eg., him/her, in order to remove possible identifiers of teachers. The only exception was in the “Gender” section of results where this would have been confusing. In this section other contextual identifiers were removed to protect teachers’ identities.

Many of the more experienced teachers were indifferent to likely ramifications from their comments or vignettes with others indicating strongly they wanted their perspectives to be included without editing. Some of these reflections were highly contentious and could have led to reprisals if left, therefore they were edited slightly (deleting names of colleagues, superiors and school) in order to protect the respondents and their colleagues. Some teachers were cognisant of the controversial nature of their discussions and indicated what they were prepared to have “on the record” and what they preferred to be kept “between you and me”. This information was useful in building up a picture of the culture within the educational system and in various schools and served as supporting data for the researcher’s perceptions.
from the interviews that were discussed in the results related to the Education environment.

All names of teachers, colleagues, principals, schools and districts have been removed as an aspect of masking identifiers. Schools and teachers were identified as metropolitan or rural as this was one of the points of inquiry in this research study. Any comments that were possibly libellous were not used; however, teachers’ rationale for viewing individuals in such an acrimonious fashion were explored in order to accurately represent the teachers’ perspectives and values.

This chapter outlines the decision-making processes that occurred in establishing the research methodology appropriate for the inquiry in this current study. Telephone interviews were identified as optimal in facilitating the exploration of respondents’ perceptions of their PD activities given the constraints in this research. A semi-structured interview schedule was developed and systematic interviewer training undertaken to optimise reliability and validity of the research method. Interviews were recorded and fully transcribed. Quantitative and qualitative data analyses were performed through a combined approach utilising MS Word, Excel, Access and SPSS statistical package.
CHAPTER 7
RESULTS
PROFESSIONAL DEVELOPMENT:
INvolvement, Choice, EFFECTIVENESS.

The results of this study are presented over the next three chapters. This first chapter (Chapter ) is substantial as it incorporates three of the five research questions. Chapter seven reports findings related to teachers’ choice, perceptions related to choice (self-determination in PD) and effectiveness, and types of professional development (PD). It also examines issues raised by Information Technology teachers, as a group they displayed considerable consistency of their perceptions and concerns. Gender factors, particularly in relation to PD, are also outlined. Additionally, teachers’ perspectives regarding the educational culture and school culture within which they work and how this related to their involvement in PD are outlined in the first results chapter.

The second chapter of results (Chapter 7) outlines how teachers’ varying stages of career/experience influenced their choice, level of involvement and their perceptions of various aspects of PD programs.

Rural teachers were a remarkably consistent group in the way they perceived their PD experiences. Their issues, interests and involvement in relation to PD are separated into the third chapter of results (Chapter 9).

At the conclusion of each results chapter is a summary followed by a discussion of the results and how these findings relate to the literature.

Note: The acronym “PD” is used extensively throughout the results chapters to indicate “professional development”. This is because teachers frequently referred to professional development using the acronym of “PD” and it occurs so frequently that use of the acronym serves to shorten the reading process.
Note: Some of the qualitative information contains “XXX”. This indicates that a name or other form of identifier has been removed for anonymity purposes.

**Involvement**

Teachers were interviewed extensively regarding the PD in which they had participated, over the previous 18 month period. These data were examined with a view to the literature and were placed into various types or modes according to the purpose of participation. These types were job-related, job-embedded, credential-orientated, professional association, self-directed, and professional reading. For a detailed explanation of these coding terms refer to the Appendix G. The number of hours in each mode was examined and the percentage of the total hours of PD determined.

<table>
<thead>
<tr>
<th>Number of hours</th>
<th>Job-embedded Mode hours</th>
<th>Job-related Mode hours</th>
<th>Credential-orientated Mode hours</th>
<th>Professional Association Mode hours</th>
<th>Self-directed Mode hours</th>
<th>Professional Reading Mode hours</th>
<th>Total hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>% of total hours</td>
<td>10%</td>
<td>22%</td>
<td>24%</td>
<td>2%</td>
<td>6%</td>
<td>36%</td>
<td>100%</td>
</tr>
</tbody>
</table>

**Table 7.1: Hours engaged in various types of PD.**

The teachers in this sample had participated in a total of 19,816 hours of PD over a period of 18 months or 60 working weeks. All fifty teachers in the sample had engaged in some PD over the period examined. Four teachers in the sample who had commenced teaching recently and had accrued a maximum of 20 working weeks of teaching experience at the time of the interviews. When their time is adjusted the total number of hours is 20,821. Using this adjusted figure, the total hours involved in PD averaged out to 347 hrs (in a 60 working week period) per respondent or 6.94 hours PD/working week/person. The figure of 20,821 was extrapolated by multiplying the beginning teachers’ total number of hours by three (increasing the total by 1005 hours). This enabled the working period to be comparable to the other teachers in the sample.
The total hours figure is a guide. It may not be a totally accurate representation of the number of hours expended in PD per working week as many of the rural teachers indicated they frequently spent vast amounts of their holiday periods undertaking PD due to difficulties accessing programs throughout term-time in rural situations. The number of hours of job-embedded mode PD was a conservative figure. This was due to fact that numerous respondents experienced considerable difficulty remembering what had been done in in-house professional development. These teachers chose to dismiss these PD days from their report as they felt it had been totally ineffective, having had no impact on them and many were unable to remember accurately what had been done during those days therefore were unable to report on those sessions in detail. This indicates that the number of hours reported for Job-embedded and Job-related modes are lower than actual hours engaged in these types of professional development.

Teachers tended to conservatively report the hours they spend engaged in professional development. When queried for specific times engaged in each PD, teachers tended to estimate lower numbers of hours. The response “I think it was 2½ hours, Oh ... put it down as 2” was characteristic of the sample.

**Level of Involvement – Changes Over Time**

Teachers were asked if the amount of PD in which they engaged had increased, decreased or remained the same over the period of their teaching career. Experienced teachers’ overwhelming response was that their PD activities had markedly increased since commencing teaching. The majority (90%) reported an increase in their PD activities due to “change, external change, just to keep up with changes that they’re bringing in”, with 35% indicating that “demands of the position, ... are becoming extraordinary and the only way to cope with it is to develop professionally”. Additionally, 24% of the sample indicated that now there is “a great expectation” “to keep abreast of the profession” and this was frequently due to increased “levels of responsibility within the school” or changes related to the structures of learning areas or “new areas of involvements”. Some (11%) stated that this was “because a lot more [PD] is offered now” “there is a huge market of PD” “there’s more time available for it” and “because you’re more aware of what’s out there”.
One respondent reported that his/her PD activities had decreased but was unable to explain why. One other indicated that they had remained the same “mostly due to the fact that I’ve been in University study over that whole time and that would be what takes up the majority of my PD time, so in terms of hours spent, I would say it’s been fairly constant”.

New teachers were generally unable to answer this question as they had insufficient teaching experience from which to draw comparisons. One beginning teacher indicated, however, that he/she was content to “just get on with the job” and felt that his/her preservice education had been sufficient, thereby negating the need to seek further PD in the immediate future.

Choice

Teachers were asked to indicate if the PD in which they had participated had been their own choice or if they had been required to attend (mandated) or felt “obligated” to attend. The category “obligated” meant the PD was not strictly mandated but there had been some pressure applied to the teacher to “encourage” compliance and attendance … “It was partly required. A member from each faculty had to participate … and it just so happened that they nominated me because I was the only person in…[the faculty with any interest in IT]… so they thought that I’d have more of an idea of what Technology was about than they would”, “the principal suggested I should go, so how do you say no to that?”

Even though there was a correlation between “Job-embedded” and “Job-related Modes” it may have been assumed that “Job-embedded” would be mandated and that other “types of PD” categories would have been personal choice, however, this did not consistently hold true. As a result the data have been analysed in a variety of ways to reflect the differing perceptions and influences on the teachers in this study.

Mandated PD incorporated the categories of job-embedded, job-related and occasionally induction professional development. It included system-wide reform or
policy implementation, District Office or school administration PD and that which had been requested by teachers via the school PD committee (these were usually included into mandated in-house PD day agendas). Mandated PD were generally conducted during school hours, either on a PD day or during the school day. When teachers were released from their classroom teaching responsibilities, the school usually provided a substitute teacher to enable the regular classroom teacher to attend. On a number of occasions teachers were required to attend mandated PD out-of-hours.

Personal choice PD was a broader category which included professional association, credential-orientated, self-directed and professional reading modes. Specifically it encompassed content or subject specific workshops, non-compulsory district office workshops, conferences, cooperative activities such as school committee work, action research projects, and meetings with colleagues on subject related activities. These sessions were conducted both in-hours and out-of-hours.

Obligated PD represented a blurring of categories across job-embedded/job related and credential-orientated modes. It emerged when teachers found it difficult to decide between mandated and personal choice categories, often reporting that they were “sort of” required to do a PD but were frequently happy to do it for a range of reasons. Some of the reasons for being required or requested to participate were that a representative from each department was required, or the respondent was the only one in the department who was willing or had any expertise (eg., IT skills/interest) to attend, or they had been told they should by a superordinate (Head of Department/Learning area, Deputy Principal, or Principal), or for performance management purposes. This category proved to be important as teachers’ frequently stated that although they wouldn’t have personally chosen to do a particular PD, they were not necessarily forced to participate and they were happy enough, or wouldn’t have refused because they did have some interest in it or “it wouldn’t look good [to the superordinate] to refuse”.

Table 7.2 displays the total number of hours teachers reported engaged in mandated, personal choice and PD they felt obligated to attend. “Number of respondents”
indicates the number of teachers who reported at least one of the choice categories. Naturally some teachers had engaged in multiple programs from that selected category. Total hours are the actual hours reported engaged in the various PD categories.

<table>
<thead>
<tr>
<th>Teachers' perceptions of choice of PD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mandated</td>
</tr>
<tr>
<td>n of resp.</td>
</tr>
<tr>
<td>Total hours</td>
</tr>
<tr>
<td>P (%) of total hours</td>
</tr>
</tbody>
</table>

Table 7.2: Hours engaged in Mandated, Personal Choice and Obligated PD.

Figure 7.1: Percentage hours engaged in Mandated, Own Choice and Obligated PD.

Teachers participated in more “own-choice” PD with a total of 13,584 hours representing sixty nine percent of the total hours engaged in professional development (69%). Obligatory PD represented one fifth (4019 hrs - 20%) of the total hours, while mandated PD was just over ten percent with 2213 hours, however, these figures were probably influenced by respondents’ difficulty to recall what had been done in mandated professional development. Participation time was strongly influenced by teachers’ willingness to undertake the professional development.
Choice - Changes Over Time

Teachers were asked if their choices of PD content had changed over the last few years. And if so, how had they altered. Almost three quarters (72%) of teachers reported that their PD choices had indeed changed over the past few years with the reasons for the changes in content explained as it had reflected the curriculum and other system-wide changes/reforms (69%) that were being introduced, teachers’ interests in teaching specific subjects (9%) had shifted due to the restructuring of schools and due to changes in positions or duties (22%) within the school.

Rationale for Participation

<table>
<thead>
<tr>
<th>Interest</th>
<th>Knowledge</th>
<th>Personal Develop</th>
<th>Skill</th>
<th>Teach Improve</th>
<th>Student Perform.</th>
<th>Learning Environ</th>
<th>Career Advance</th>
<th>Network</th>
<th>Assumed rationale</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mandated</td>
<td>22</td>
<td>14</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>5</td>
<td>5</td>
<td>7</td>
<td>6</td>
</tr>
<tr>
<td>Personal Choice</td>
<td>90</td>
<td>73</td>
<td>28</td>
<td>27</td>
<td>29</td>
<td>9</td>
<td>6</td>
<td>13</td>
<td>20</td>
</tr>
<tr>
<td>Obligated</td>
<td>73</td>
<td>46</td>
<td>15</td>
<td>23</td>
<td>18</td>
<td>8</td>
<td>9</td>
<td>29</td>
<td>14</td>
</tr>
</tbody>
</table>

Table 7.3: Teachers’ rationale for participation - Mandated, Personal Choice, and Obligated PD.*

(*Figures in Table 7.3 above are percentages (%) of rationale for choosing PD codes, identified from the qualitative comments.)

While teachers reported their rationale for choosing particular PD programs they also provided their opinion of the rationale underlying system-provided professional development. Each PD, and the teachers’ comments regarding the PD, were examined and the categories above (Table 7.3) were developed from the key responses for choice offered by the teachers. The columns were sorted according to the percent mean. The percentage was calculated by totalling the number of times each code was entered divided by the total number of respondents indicating they
had participated in Mandated, Personal Choice and Obligated professional development.

Teachers’ perceptions of their rationale for choice of PD, or for being required to participate were examined in relation to the variables of Mandated, Personal Choice and Obligated professional development. Teachers reported feeling more committed to the PD if they personally chose to participate, in comparison to those they had been required to do (mandated) or felt obligated to attend. Obligated PD displayed a higher percentage across most of the variables than mandated professional development. In the category of teachers own selection rationale, “Interest” (which included teachers’ own interest factor and also what they supposed may interest their students) was the main reason for undertaking PD, with “Knowledge” (mainly content knowledge but also included knowledge about teaching or teaching-related matters) being the second most commonly reported factor. Improvement as a teacher, “Personal Development”, development of “Skill”, and the opportunity to “Network” with colleagues were also considered important in personally selecting professional development. Improving “Student Performance” and the teaching/learning “Environment” was not readily volunteered as a rationale for choosing to attend a particular PD (~8% and 6%).

Teachers’ perceived mandated PD was undertaken because it was required by the school administration (86%) probably because of “Political Agenda(s)” in action (36%) due to the climate of “Change/reform” within which teachers were working (39%), or because it would “Solve Problems” within the school (38%). Some examples of the types of political agendas reported by teachers were the “push for middle schooling”, schools or administration staff deciding to adopt “local merit selection” as a process in selecting their staff, “Performance Management” and other accountability processes, and “Risk Management” policy development for dealing with unusual, potentially dangerous situations staff in schools were likely to encounter. Examples reported as demonstrating change but also included in the category of “Political Agendas”, were the implementation of “Learning Technologies” policy that required schools to establish networks of computers and other related information technology equipment and accompanying software, and the
Curriculum Framework legislation and related Student Outcome Statements. “Solving Problems” generally related to demonstration of compliance by the school to various system-based policy implementation or administrations’ perceptions of problems within the school such as staffing issues (lack of available staff), dealing with whole school management problems, promotion of the school and related programs to the community, and implementation of performance management and other programs such as “learning teams for middle schooling”.

While teachers indicated they personally selected PD based upon the interest factor (90%) they also stated they did have some interest in mandated PD (20%). Perceptions of mandated or system-required PD ranged from total indifference … “I cannot honestly recall what we did at all”, dismissal … “I don’t pay any attention to it as it is usually totally irrelevant” or outright anger and hostility … “an absolute waste of time” “mind-numbingly boring” “criminal that we have to waste our time and their money to attend such absolute drivel” at being required to attend.

Similarly, teachers reported that their choice related significantly to a desire to increase their knowledge (73% and 46% in obligated PD) … “you just have to keep up-to-date with what is happening and so much has changed since I came through [secular degree education] it was fascinating”. Teachers also chose PD to increase their range of non-teaching skills … “had a practical hands-on component to putting the fires out [fire extinguisher - safety PD]” to have the opportunity to develop as a whole person (Personal Development – 28%) … “to do a bit of welding” “appreciate jazz” “get a handle on writing a good CV”.

Obligated PD was frequently perceived by teachers as serving school purposes as reflected by the variables of “Change/reform” (26%), “Administration Required” (39%), “Information Delivery” (26%), and “Solve Problem” (29%). Participation in obligated PD was also influenced by the desire to be involved in the decision-making processes within the school for a variety of reasons ...

“...we needed to really know what was happening. So I guess it was out of a sense of ‘had to’ because no one else was coming forward.... Because I have a daughter in the school” “Just to have some sort of input into the school and have some say in what is going on” “because of the erratic
nature of decisions made” “to keep an eye on how the finances are distributed.”

Additionally, teachers indicated they were prepared to undertake the obliged PD because it provided the opportunity to demonstrate to administration their commitment to the school and their careers (Career Advancement – 29%) … “you have to be seen to be interested” “that’s where you are going to be noticed”.

Teachers rarely overtly reported selecting PD specifically to have an effect on their students’ performance or the classroom/school environment (Student Performance – M 8% and classroom/school environment – M 6%). Teachers assumed that there would be a natural flow-on positive effect to students from teacher development. Where benefits to students were specifically identified was in informal PD where teachers visited sites of educational interest pre-excursions or were likely to be able to develop resources or activities resulting from the professional development. Additionally, PD involving WACC moderation or syllabi meetings in which assessments were discussed and resources, ideas and activities were shared with experts/colleagues were perceived to be of direct positive impact on students’ performance. Teachers also reported that an “increase in [their] own confidence” in teaching (particularly in upper school classes/units) resulting from reassurance of satisfactory performance in these meetings, had a direct benefit to their students.

**Effectiveness**

Teachers were asked to rate the effectiveness of each PD and the effectiveness ratings were aligned with the various “Types of PD” categories.

Teachers were asked to rate the effectiveness of each PD they had reported attending. Effectiveness of PD was rated on a scale of 1 to 10 with 1 being ineffective and 10 being highly effective. Job-embedded and job-related modes had the greatest range with effectiveness ratings across the scale from ineffective to highly effective (1 to 9.5).
<table>
<thead>
<tr>
<th></th>
<th>Job-embedded Mode</th>
<th>Job-related Mode</th>
<th>Credential-Oriented Mode</th>
<th>Professional Association Mode</th>
<th>Self-directed Mode</th>
<th>Professional Reading Mode</th>
</tr>
</thead>
<tbody>
<tr>
<td>N of resp. reporting involvement in this PD</td>
<td>50.0</td>
<td>49.0</td>
<td>23.0</td>
<td>29.0</td>
<td>13.0</td>
<td>36.0</td>
</tr>
<tr>
<td>Range Min. effectiveness</td>
<td>1.0</td>
<td>1.0</td>
<td>2.0</td>
<td>2.0</td>
<td>4.0</td>
<td>6.0</td>
</tr>
<tr>
<td>Range Max. effectiveness mode</td>
<td>9.5</td>
<td>9.0</td>
<td>10.0</td>
<td>10.0</td>
<td>10.0</td>
<td>10.0</td>
</tr>
<tr>
<td>SD</td>
<td>1.6</td>
<td>1.4</td>
<td>1.9</td>
<td>1.8</td>
<td>1.1</td>
<td>1.8</td>
</tr>
<tr>
<td>M effectiveness</td>
<td>6.1</td>
<td>6.9</td>
<td>8.1</td>
<td>8.1</td>
<td>7.8</td>
<td>7.8</td>
</tr>
</tbody>
</table>

Table 7.4: Effectiveness ratings for Types of PD.

Almost all respondents had participated in job-embedded (50) and job-related modes (49) and yet these two categories rated as the least effective. The highest effectiveness ratings in the range were in credential-orientated, professional association, self-directed, and professional reading modes with all categories attaining a score of 10 from some participants. The highest mean effectiveness rating was 8.1 for credential-orientated and professional association modes, with professional reading and self-directed modes being second with 7.8.

The majority of teachers (96%) articulated the opinion that PD was important in teaching and was linked to professionalism ...

"I think it's [PD] a very good thing and I think we should all do it" “if you are a professional you need to make sure you keep yourself educated in the fields you are teaching” “it's very valuable” “I think if you don't, you fall behind and it shows. If you want to be an effective educator, you have to keep up.”

Perceptions of the importance of PD ranged from a couple of teachers who were indifferent to PD or cynical regarding the effectiveness, to many who were deeply committed to their own ongoing professional growth. Many (95%) voiced opinions that reflected a critical need for PD … "I wish that more money was spent on it so they could all be top class, highly relevant PD. And I think it should just be a routine thing that you do". Teachers who were in acting Head of Department (HOD)
positions or were new to their positions indicated they needed more PD to assist them in carrying out their duties ... 

"my level of responsibility within the school has increased so ... I’m in the spotlight a lot more and therefore required to be ... a role model" "they don’t give you any PD that helps with the job, I have to get that from other HODs."

Table 7.5 displays the mean effectiveness ratings of professional development in which teachers participated. The mean effectiveness rating was higher for “own-choice” PD at 7.5 in comparison to mandated at 5.8 and obligated at 7.1. This correlated with the “Types of PD” categories of job-embedded and job-related modes being rated lower than professional association and credential-orientated modes. Approximately, seventy percent (69%) of the total PD hours were engaged in personal or own choice PD (correlating mainly with professional association, credential-orientated, professional reading, self directed and in fewer cases job-related modes).

<table>
<thead>
<tr>
<th></th>
<th>Mandated</th>
<th>Own Choice</th>
<th>Obligated</th>
</tr>
</thead>
<tbody>
<tr>
<td>n</td>
<td>49.0</td>
<td>48.0</td>
<td>34.0</td>
</tr>
<tr>
<td>M</td>
<td>5.8</td>
<td>7.5</td>
<td>7.1</td>
</tr>
<tr>
<td>SD</td>
<td>1.4</td>
<td>0.9</td>
<td>2.1</td>
</tr>
</tbody>
</table>

Table 7.5: Effectiveness ratings for Mandated, Personal Choice and Obligated PD.*

(*Table 7.5 displays the mean effectiveness ratings compiled from PD that were in Mandated, Own Choice, and Obligated categories.)

Teachers’ willingness to cooperate with school requests that were perceived as interesting or useful to the teacher or teaching, was demonstrated by the higher effectiveness rating of obligated PD in comparison to mandated professional development.
Teachers were specifically asked, what in their view, was the most effective PD, was it that arranged by themselves or that mandated/required by the system, and why?

<table>
<thead>
<tr>
<th>Most effective PD</th>
<th>f</th>
<th>P (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mandated</td>
<td>4</td>
<td>8</td>
</tr>
<tr>
<td>Personal</td>
<td>40</td>
<td>80</td>
</tr>
<tr>
<td>Mixed</td>
<td>6</td>
<td>12</td>
</tr>
<tr>
<td>Total</td>
<td>50</td>
<td>100</td>
</tr>
</tbody>
</table>

Table 7.6: Teachers' perceptions of the most effective PD – Mandated or Personal Choice.*

(* The results in Table 7.6 were from an open-ended question posed regarding what teachers perceived to be the most effective PD, Mandated, Personal or a combination of both.)

The majority of teachers (80%) stated that personally selected PD was more effective. When probed, most indicated they felt that it was because they chose PD that was of particular interest to them, was more "relevant" to their needs or had "direct application to the classroom" than system-provided or mandated PD through in-house sessions. Within this group a trend emerged, with some specifically stating that if they had personally chosen PD they applied themselves to the work entailed, altered their attitude to expending effort and persevered longer, and/or put more time into it because they had personally made the choice to participate.

Over a quarter of the teachers (28%) were self-aware in terms of personal weaknesses ... "you can tailor [it]... to your own individual requirements"... areas needing development ... "I get to choose what I want to do and what I perceive as a need for me, in an area of weakness, or perceived weakness anyway" and indicated that this was an important issue ... "Not only does it fulfil a need but actually makes me feel I'm doing something to make myself better... you are actually working towards a better you". The teachers who indicated they had specific weaknesses were asked if they could provide examples. They immediately listed off a range of topics they felt they needed to access in which they had poor knowledge and skills. "It was what I specifically needed and what I set out to do and achieve".

Self-determination appeared to be a crucial aspect to approximately 10% of the teachers ...
because I could choose what it is that I needed to do rather than being told, “This is what we’re doing” “it meets what I thought were my needs rather than what the Department thinks my needs are” “because I saw a need for that myself rather than to have someone tell me what I needed” “I identified what was needed in order to bring about curriculum improvement and to advance student learning and to provide them [his/her staff] with an up-to-date curriculum.

The issue of choice of PD appeared to be a contentious one as many raised this point in other parts of the interview as an aspect of teachers’ professionalism and a matter of trust.

Some found it difficult to supply a definite answer as to whether personally chosen or mandated PD was most effective. Six percent of the sample reported mixed feelings, in that the system-based PD was beneficial for some things ... “you don’t know what’s going to be good for you until you go to it” whereas personally chosen PD supplied other needs ...

sometimes you go to a professional development for yourself and you might come away feeling it’s not so good; sometimes you may go to a staff meeting and you come away and feel you might not have exactly everything you want, but you can’t pin it down to one or the other.

One commented ... “PD you choose meets your needs. The PD they choose meets their [system or government] needs. So it needs to be a balance between what you need and what they think you need.” Another cited an example of a course he/she had undertaken which was system-based but he/she had been prepared to participate in and found it particularly useful “the Leadership Course that I went to which was a systems-organised thing... and obviously I rate very highly the time with my colleagues talking the nitty gritty.”

A small number (8%) indicated they relied on the system to provide for their professional development requirements and this had been satisfactory ...

It’s [EDWA provided PD] been pretty relevant and quite interesting. They sort of haven’t left any gaping area where I’ve had to go away and look at anything in particular which I think says a bit in itself... it’s ...
They are so general...I think it takes an incredibly gifted and talented speaker to speak to a group of teachers and take them on a journey... I think it’s a really, really hard thing to do well... and I’ve yet to meet someone who can do it well.

Mandated PD did provide teachers with knowledge (41%) ...

*it was very much stand up at the front and have information poured down your throat sort of model. But at the same time, the information that was poured down your throat was very important.*

Almost a third (32%) of respondents indicated that mandated PD was interesting and yet there were concerns with the accuracy and validity of some of the information (40%) provided ... "I found it very one-sided ... they didn’t present the negative side to it, we were only presented with the positives, so... we didn’t really find out exactly the pros and cons of each", and/or generally did not meet expectations (39%) ... "it had absolutely nothing to do, realistically, with the educational outcomes of our students".

Personally chosen PD was reported to be the most interesting (81%) and provided the most “Knowledge” (70%). Other positive aspects were “Personal Development” (31%), “Teacher Improvement” (30%), “Skills” (28%) and the opportunity to “Network” (28%) with colleagues. Similar to mandated PD, personal choice PD did not always meet expectations (25%).

Obligated PD was reported as being more interesting (62%) and providing more knowledge (59%) than mandated professional development. It was reported to have some benefits in developing “Skill” (26%), “Teacher Development” (21%), “Personal Development” (21%), and was perceived as having provided opportunities for “Career Advancement” (26%). Some obligated PD was seen as a waste of time or as inefficient in the use of time (33%) ... "sometimes I feel that we’ve [people on the committee] got very little to do with the decision-making process in that it’s pretty well steered by the principal”, and not necessarily always meeting expectations (24%) ...

*the Risk Management Committee discussed the shooting in America at some length as an example ... and many of the older members just said it*
couldn't happen,... and therefore we had great difficulty discussing the need to develop the strategy to cope with such situations. So the effectiveness of the committee was minimised.

When comparing teachers' rationale for choosing PD, and their criteria for rating the effectiveness, it became apparent that teachers had got more out of mandated PD in terms of interest and knowledge than they had expected, with slight increases in the other positive variables. Personal choice PD was generally perceived by teachers as effective, however, some teachers (10%) indicated that the PD they had chosen was less interesting than actually experienced. Obligated PD was less interesting than first thought by teachers but was effective in the other positive variables.

**Content**

Teachers' descriptions of their professional development activities revealed the content to be related to their subject specialisation interests, and/or to the various educational policies that were being implemented at the time of the study, and/or to teaching related interests. Table 7.8 displays the total number of hours teachers reported engaged in either their subject specialised, policy-related or other teaching related professional development.

<table>
<thead>
<tr>
<th>Subject/Specific PD</th>
<th>Information Technology</th>
<th>Curriculum Framework</th>
<th>Other Policies</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total hours</td>
<td>9709</td>
<td>7806</td>
<td>1250</td>
<td>1051</td>
</tr>
<tr>
<td>P(%) of total</td>
<td>50</td>
<td>39</td>
<td>6</td>
<td>5</td>
</tr>
</tbody>
</table>

*Table 7.8: Total hours engaged in particular PD content.*

(†Content/subject specific PD included programs/sessions that increased the teachers' subject expertise/knowledge [frequently provided by professional associations but not exclusively], networking with other teachers, professional reading related to teaching specialisation.

*Other policies included Middle Schooling, Managing Student Behaviour, Performance Management, Students at Educational Risk, Risk Management and other teaching-related policies.)
Figure 7.2: Percentage hours engaged in specific PD content.

(*Content/subject specific PD included programs/sessions that increased the teachers' subject expertise/knowledge [frequently provided by professional associations but not exclusively], networking with other teachers, professional reading related to teaching specialisation.

*Other policies included Middle Schooling, Managing Student Behaviour, Performance Management, Students at Educational Risk, Risk Management and other teaching-related policies.)

Subject-Specialisation

Teachers frequently indicated they were content or subject specialists and that their primary concern was to remain up-to-date in their field of expertise. This perception was endorsed by the high number of hours (9709) teachers reported engaging in subject-specific professional development. This PD content was the most popular and frequently reported with almost all (98%) teachers being involved, to some extent, and representing half the total number of hours engaged in professional development in this study. Table 7.9 displays that PD on subject-specific content was generally rated highly by teachers with the mean effectiveness rating being 8.0.

<table>
<thead>
<tr>
<th>Subject-specific or Content-related Skills</th>
<th>M effectiveness</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>8.0</td>
<td>1.7</td>
</tr>
</tbody>
</table>

Table 7.9: Effectiveness rating of subject-specific PD.*

*Table 7.9 displays the effectiveness rating of PD related to subject-specialised knowledge or skills and excluded job-embedded and job-related modes.
Many indicated that their rationale for participating in content/subject-specific PD was because these were most relevant to teaching and to their students. Involvement ranged from some respondents being fully committed and spending considerable time participating in, or organising PD, to a couple attending a few sessions. The range of PD was considerable but most was related to up-dating knowledge and/or skills in the teacher’s particular expertise, for example, experiments predicting volume and shape, robotics, SciTech (a science discovery facility) lecture series – genetics, titration techniques, sports education, LOTE workshops, stock market investment, and fire safety. The following subject-specific professional development activities/programs are prioritised according the number of hours teachers reported engaged in each.

**Professional Reading**

Almost three quarters of the sample (72%) reported engaging in professional reading and Internet research to keep up-to-date with developments in their subject-specialisations. Professional reading represented the highest number of hours with 5896 hours being reported. Some professional reading was “required” as a component in courses they were undertaking in pursuit of further qualifications. Required reading for particular courses such as Train the Trainer programs (Internet, VET, Pathways to excellence etc) were excluded from these figures as they were part of specific programs. Additionally, respondents found it difficult to differentiate the required readings from the rest of the course requirements.

Professional reading was generally viewed as an important PD component that increased teachers’ general knowledge and kept them abreast of changes in their subject specialisation. Effectiveness ratings varied, as some teachers indicated that occasionally time was wasted reading information that did not directly relate to teaching “from time to time obviously you get drawn into areas that are not really relevant to school life” “there is wasted time wading through stuff that you could never use in the classroom” or was “very difficult to comprehend if it’s very technical”.
A considerable amount of the professional reading was conducted by IT teachers/system administrators "to find out ... how something was done, ... basically it was for problem solving" with school IT networks.

<table>
<thead>
<tr>
<th>Professional reading</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>n of individual PD</td>
<td>26.0</td>
</tr>
<tr>
<td>n of hours in these PD</td>
<td>5896.0</td>
</tr>
<tr>
<td>M effectiveness</td>
<td>7.3</td>
</tr>
<tr>
<td>SD</td>
<td>1.7</td>
</tr>
</tbody>
</table>

Table 7.10: Hours and effectiveness rating of professional reading PD.

**Action Research**

Action research activities were reported by 10% of the sample and described as "excellent" professional development. Although only 10% of teachers reported involvement in this category, it represented the second highest number of hours (922). The content of action research varied and included the implementation of the CF and SOS, trialling specific student-centred strategies and the "use and viability of portfolios". The highest number of hours reported in individual programs, were in this form of PD with 922 hours being expended in action research projects. Four of the five action learning programs were formally organised through a variety of organisations (e.g., EDWA, universities) with one being self-initiated due to personal interest and a desire to refine teaching practices. The mean rating of effectiveness for action research PD was 8.6 with most of the participants stating that they would have rated it higher if the necessary hours had been fewer. The high level of commitment required had been a disadvantage.

<table>
<thead>
<tr>
<th>Action research PD</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>n of individual PD</td>
<td>5.0</td>
</tr>
<tr>
<td>n of hours in these PD</td>
<td>922.0</td>
</tr>
<tr>
<td>M effectiveness</td>
<td>8.6</td>
</tr>
<tr>
<td>SD</td>
<td>0.9</td>
</tr>
</tbody>
</table>

Table 7.11: Hours and effectiveness rating of action research PD.

**Credential-orientated**

Teachers also reported interest and considerable involvement (797) in increasing their knowledge and skills through studies for further qualifications. These qualifications were being undertaken from a range of institutions such as
Universities, Tertiary and Further Education (TAFE) campuses, or commercial providers such as Microsoft Certified Training Centres. Some of the courses included conversions of initial teaching qualifications to Bachelor of Education (three-year to four-year trained), Master of Education, a Psychology Degree, Languages Other Than English (LOTE) course in various languages, LOTE methodology, Chemistry, Educating students with special needs, Mise En Place cookery, soccer coaching clinic, Microsoft Certified Professional courses and Senior First Aid courses.

<table>
<thead>
<tr>
<th>Credential-oriented PD</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>n of individual PD</td>
<td>13.0</td>
</tr>
<tr>
<td>n of hours in these PD</td>
<td>797.0</td>
</tr>
<tr>
<td>M effectiveness</td>
<td>7.9</td>
</tr>
<tr>
<td>SD</td>
<td>2.0</td>
</tr>
</tbody>
</table>

Table 7.12: Hours and effectiveness rating of credential-orientated PD.

VET – Industry Recognition

While teachers in this study were engaging in credential-orientated PD one form was in relation to the changes in post compulsory courses. Teachers who were teaching in the vocational education and training courses were required to undertake an industry recognised qualification, namely "Category II Train the Trainer" in order for their students to be able to exit school with TAFE or industry compliant qualifications. Most teachers who reported involvement in VET programs were passionate about the advantages to his/her students; however, they reported experiencing a range of problems and/or issues related to undertaking these duties.

One of the major problems was in attaining accreditation. The procedure for attaining accreditation appeared to vary considerably around the state. One teacher related a less than positive experience with the apparently unreasonable expectations of the authorised provider ...

"the provider contracted by EDWA seemed to have no idea of the demands on teachers ... the expectation [was] that we could just drop everything and do what they wanted ... immediately. They had no understanding that teachers do not have flexible time tables ... he wanted to see all of the staff involved at the same time and it just wasn’t feasible ... and in the end, everyone in the school dropped out ... because it was too unwieldy."
Another teacher referred to the amount of time needed to collate the paperwork required for the same accreditation ... “to get all the paperwork, the documentation and the verification, took ... two hours a day for two or three weeks”. The importance of gaining accreditation was emphasised by respondents ...

*Voc Ed is becoming a predominant push at the moment with ... numbers doing TEE [Tertiary Entrance Examinations] these kids are not leaving school in Year 10 to get jobs, they are staying on and getting Voc Ed training.*

Another teacher explained the need for accreditation ... “[industry] won’t often or always recognise the teaching qualification.” While teachers were aware of the advantages of industry recognition for their students they also reported frustration with the lack of understanding demonstrated by industry of teachers’ abilities to teach students at an industry level ...

*At the moment, they’re [the groups involved in Vocational Education and Training] still fighting over what we can actually teach. The industry... want us to train their people, but we’re trained as educators not as ... apprentice-makers, and they’re having trouble coming to grips with what we can actually do ... we’re viewed as a bit feral because we haven’t worked in the industry.*

**Self-directed**

Self-directed PD was usually informal and involved preparation for teaching. In this study, teachers reported engaging in 574 hours of self-directed professional development. These PDs included pre-excursion visits to sites of educational interest, visits to overseas or local schools to investigate specific educational practices and attendance at events relating to syllabus content. For example, map-making in rural locations while on holidays, attendance at Agricultural Field Days, visits to the Maritime and main Museum, Underwater World Aquarium, the Zoo for the primate program, excursions to Bells Rapids (a river region) for outdoor education units, Bush Camp orientation, visits to Fremantle Prison for exploration of past life in the colony, schools around the world to investigate “middle schooling” and “boys in education” policies in action, and an expo at the School of Arts. Another teacher was
committed to developing and working on the school newsletter and was researching appropriate techniques for this purpose. Teachers’ responses related to these PD indicated that this directly benefited their students, in that, it was ensuring their safety, was likely to be more interesting to them, and/or was more relevant to their lives or likely careers.

<table>
<thead>
<tr>
<th>Self-directed PD</th>
</tr>
</thead>
<tbody>
<tr>
<td>( n ) of individual PD</td>
</tr>
<tr>
<td>( n ) of hours in these PD</td>
</tr>
<tr>
<td>( M ) effectiveness</td>
</tr>
<tr>
<td>SD</td>
</tr>
</tbody>
</table>

Table 7.13: Hours and effectiveness rating of self-directed PD.

Although some teachers were avid consumers of PD arranged and provided by professional associations, most (90%) had located their own PD through other sources such as colleagues and associated networks, district office, School Matters (EDWA information resource newspaper), other advertising material that came into the school and was distributed to faculties.

**Professional Associations**

Teachers frequently reported attending annual conferences provided by particular professional associations or occasionally by other educational associations. Reports of PD from these conferences varied according to the sessions teachers selected to attend. All conferences were of a similar format with a pre-conference dinner (for socialising and networking), a keynote speaker (generally a teacher or other expert educator), and a range of sessions from which teachers could make a choice. Conference effectiveness as a whole appeared to be difficult to judge as teachers rated some sessions highly and some poorly. As a result individual sessions were examined and explored with effectiveness ratings attributed to that particular session rather than the entire conference.

Some of the sessions that stood out in teachers’ minds, hence were reported in full, were Human Biology – case studies in genetics and cloning, Astronomy, children with special needs, literacy priorities, inter-textuality, critical thinking skills, middle schooling approaches. Reported effectiveness ratings were higher if the session
format was interactive, directly related to teaching - in terms of skills or content, and/or provided teachers with resource materials.

Professional associations frequently addressed other issues concerning teachers that were not related necessarily to content or subject knowledge/expertise. For example sessions on merit promotion processes, corporate loyalty, legal issues related to managing student behaviour, legal issues related to information technology and the use of the internet were reported as provided by these associations. One of the aspects frequently reported as a particular asset with this form of PD, was the increased networking opportunities available at these events. Teachers reported a need to “catch up with mates [colleagues] I haven't seen for a while and find out where they are and what they are doing”. They stated that this was a significant advantage as no other way existed for teachers to keep track of each other. Two more experienced teachers indicated dissatisfaction with the inefficient use of time or the lack of relevancy of sessions provided by their professional associations and had subsequently withdrawn.

<table>
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<tr>
<th>Conferences</th>
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<tr>
<td>$n$ of individual PD</td>
</tr>
<tr>
<td>$n$ of hours in these PD</td>
</tr>
<tr>
<td>$M$ effectiveness</td>
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<td>SD</td>
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Table 7.14: Hours and effectiveness rating of conferences.

**Expert Speakers**

Teachers reported attending lectures/workshops with expert speakers, such as seminars on - focusing on change/reform, “learning to learn”, and student-centred learning. Occasionally, these were organised by professional associations, sometimes by a district office or other educational promoters. Included in this category was time engaged in seeking out and organising guest speakers for colleagues and students. These speakers were frequently reported as inspirational or motivating; however, when asked if their teaching practices had altered as a result of these PD sessions teachers generally related changes in terms of their own knowledge rather than practices or skills level.
Expert speakers

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<tbody>
<tr>
<td>Noted of individual PD</td>
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</tr>
<tr>
<td>Noted of hours in these PD</td>
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<tr>
<td>M effectiveness</td>
<td>6.8</td>
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<tr>
<td>SD</td>
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Table 7.15: Hours and effectiveness rating of expert speakers.

Job-embedded Subject-specific

Almost three quarters of the sample (72%) reported conducting PD sessions for their colleagues in subjects in which they had personal expertise or were relaying from another PD sessions. Information Technology teachers were the most obliging with 91% providing PD for colleagues “if I could make somebody’s life a little bit easier, I should do that because I know how difficult it is to learn something... why not share and help somebody else out?” As well as wanting to assist their colleagues many felt a responsibility to those who were struggling to come to terms with IT by running basic courses, finding appropriate software and showing them how to use the hardware and software ...

some teachers were so nervous about switching [a computer] on that last year three people actually asked me to teach them the basics ... they need a lot of help to do it and they don’t have 48 hours in one day.

The teachers who facilitated these PD did not charge for their services and the majority of sessions were conducted out-of-hours.

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<tbody>
<tr>
<td>P (%) of teachers facilitating any PD for colleagues</td>
<td>72</td>
</tr>
<tr>
<td>IT (maj/min) Teaching only (n=11)</td>
<td>91</td>
</tr>
<tr>
<td>Other teachers (n=39)</td>
<td>66</td>
</tr>
</tbody>
</table>

Table 7.16: Teachers facilitating PD for colleagues.

Job-related - WACC

The Western Australian Curriculum Council was consistently reported as a significant provider of PD workshops and sessions. While EDWA recommends that
teachers attend these sessions they are not mandated and teachers frequently reported that they had personally chosen to participate in these sessions. Moderation and syllabi meetings were perceived as important and useful in providing opportunities for teachers to ascertain how their teaching expectations (for students) aligned with their colleagues” and WACC parameters, to obtain up-dates on changes to the syllabus, opportunities to discuss practices and advances in other schools, and share resources and experiences with colleagues. Many favourable comments were made by teachers in this study regarding the subject area experts within the WACC and their provision of assistance to faculties.

Job-embedded/Job-related

While half of the professional development hours were focused on subject-specific PD the other half (50%) were related to employer requirements, particularly, policy implementation. The number and variety of EDWA policies being introduced into schools during the 18-month period, investigated in this study, were considerable. Some of the most frequently mentioned policies were: Curriculum Framework (CF) legislation and Student Outcome Statements (SOS – CF and SOS aspects of the Curriculum Improvement Program); Learning Technologies specifically Information Technology (IT); Local Area Planning (LAP) and Local Merit Selection; Managing Student Behaviour; Students at Educational Risk; Risk Management; Performance Management; Aboriginal Education; and Middle Schooling. All of these policies appeared to have PD funding with time being allocated during in-school PD days (job-embedded mode) and out-of-hours (job-related mode). In terms of hours involved in policy-related content, Information Technology PD was the highest, accounting for 39% of the total hours PD hours, with Curriculum Framework (6%) second, and “other” policies such as Middle Schooling, Managing Student Behaviour, Performance Management, Students at Educational Risk ranged between 1% and 2% of the total hours.

Information technology PD represented almost 40% of the total number of PD hours in this study. Teachers reported participating or running 39 distinct IT sessions. Curriculum Framework PD represented 6% of the hours with 44 separate sessions being reported. The “other” policies represented 5% of hours with a combined total
of 61 separate sessions being reported on Middle Schooling, Managing Student Behaviour, Performance Management, and Students at Educational Risk content.

*Effectiveness ratings for various PD content*

<table>
<thead>
<tr>
<th></th>
<th>Technology</th>
<th>Curriculum Framework</th>
<th>Middle School</th>
<th>MSB</th>
<th>Performance Management</th>
<th>Students at Educational Risk</th>
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<td>39.0</td>
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<td>11.0</td>
<td>24.0</td>
<td>17.0</td>
<td>9.0</td>
</tr>
<tr>
<td><em>M</em></td>
<td>7.3</td>
<td>5.4</td>
<td>6.2</td>
<td>7.1</td>
<td>6.4</td>
<td>6.0</td>
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<td>5.0</td>
<td>9.0</td>
<td>10.0</td>
<td>6.0</td>
</tr>
<tr>
<td>SD</td>
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<td>2.5</td>
<td>2.1</td>
<td>3.0</td>
<td>1.1</td>
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Table 7.17: Effectiveness ratings of various policy-related PD*.

* Table 7.17 displays the content of policy-related PD in order of the number of hours teachers reported in each.

Technology PD was rated as the most effective with a mean rating of 7.3 and CF with the lowest at 5.4. Perceptions of CF professional development effectiveness were variable as demonstrated by the qualitative data results under “Curriculum Framework” heading. Performance management PD included, both training in order to carry out the management of teachers, and PD undertaken as part of the process of being performance managed. There were 17 sessions PD related to PM with mean effectiveness rated at 6.4. The standard deviation and mode of the effectiveness of PM seen in Table 7.17 reflect the fact that response varied considerably. Compared with that of other content areas, respondents were more polarised when they came to relate the effectiveness of PM, with some giving it a very high rating, and others a very low rating. Middle schooling PD involved fewer teachers in the sample than the other content and was rated at 6.2. The least number of PD was Students at Educational Risk (SAER) with 9 sessions reported. Professional development for this content area was rated at a mean of 6.0 on the ten point scale.

Policy-related professional development represented half of the PD in this study and it is therefore important for each content category to be explored further. The content
of policy-related PD is examined according the level of participation teachers reported, that is, the number of hours teachers engaged in the various PD content.

**Information Technology**

The high number of hours teachers reported engaging in information technology PD in this study clearly indicated that this area was a priority for them. Technology was also a consistent PD content across all discipline areas, that is, regardless of subject specialisation, teachers were perceiving technology as important. Just over three quarters (76%) of all the teachers interviewed in this study were involved in PD related to information technology. When discussing the environment of change/reform within which teachers worked, technology was one of the aspects repeatedly identified as a significant area of change for teachers. Hours expended in IT professional development increased with teachers’ experience levels. Inexperienced teachers were engaging in fewer hours of IT professional development than their more experienced colleagues. Most of the inexperienced teachers were both conversant and comfortable with IT in comparison with some more experienced colleagues.

Teachers’ IT skill level varied from highly skilled (system/network administrators) to others who were completely unfamiliar and were self acclaimed "technophobes" who were "finding out where the 'on' button" was. The range of IT professional development varied from subject-specific technology to IT teachers’ specialised expertise for developing and maintaining school-wide systems.

Examples of subject-specific IT professional development were knowledge and expertise in the use of graphic calculators (in Mathematics and Science areas), computerised kits for soil testing, monitoring titrations, software for marketing, stockbroking, simulations in developing cities or theme parks, human biology physiology packages), use of scanners, digital cameras and hardware involved in projecting onto screens from the computer in place of overheads (utilising software packages eg., MS PowerPoint), use of the Internet for educational sites, Web page production processes, and software required for assessing and reporting purposes ...

"it was really useful to realise that there were these resources available to us. And
they are excellent resources using computers in all different teaching areas for different projects”.

Information Technology teachers were seeking quite different PD to that of subject-specialist area teachers. Most IT teachers were seeking PD that would assist them in designing, developing and maintaining network systems within their schools. Some of the more sophisticated, higher-level PD reported was undertaken through commercial providers (eg., Microsoft Certified Professional [MCP] courses) or tertiary education institutions (eg., Curtin University, Technical And Further Education courses - TAFE).

**Format of Information Technology Programs**
The format of most IT professional development programs was “hands-on” with a facilitator, who was frequently a colleague within the school, providing instruction, demonstration and allowing time for practice with facilitator advice and assistance available. Teachers reported the greatest increase in skill, both in generic skills, and in teaching skills in relation to IT professional development than any other skill-based course. Teachers generally found the format of instruction, demonstration and practice with support to be most satisfactory in increasing their expertise and knowledge. Where dissatisfaction was reported it was due to lecture-format rather than hands-on, a situation of too few computers for one-to-one interaction with the technology, too few teacher/facilitators to provide sufficient assistance, or insufficient time to practice the skills before either, moving on to new information/skills, or to fully understand and establish foundation skills.

Advanced IT skills PD frequently followed similar formats to those previously outlined. Some IT sessions provided by EDWA or District Office personnel were lecture-based. Information technology lectures were for information delivery, usually pertaining to the use of technology in the classroom to facilitate student-centred learning, legal implications for teachers with the use of Internet facilities, or software licensing regulations.
Many who reported low IT skill levels also reported a need, rather than a desire to become familiar with technology. They frequently stated that they had little interest, rather, acknowledged that IT “was the way of the future” and that they were required to have a certain skill level in order to teach and develop resources of an acceptable standard. Two teachers were particularly concerned and anxious about IT and the impact on teaching and teachers ...

“... we’re bringing in all these computers and we’re trying to find something to do with them. We’ve got the cart before the horse”, “They’re trying to push all these computers on to us but I mean ... have you ever sat in a classroom with 24 or 25 computers all going and you’ve got a class of 32 Year 8’s all wanting to use them and the fans are going and its stinking hot?”

Some teachers were enthusiastic about IT and the implications of utilising these technologies for students who were at educational risk ...

3-D modelling and moving the shapes, translation interpretation ... it was excellent... using weather patterns, going on to the Internet,... I’ve got kids in there who are not really meant to be in the same class because they’re such behavioural problems... the second day they turned up and ... most of them had their worksheets done and ready to go on the computer ... , so it’s a real turnaround, because these are kids who you’ve got to really push to get working.

Those who were actively seeking and engaging in advanced technology PD from interest had a reasonable skill level and/or were requiring increased knowledge and expertise for their positions as IT teachers or IT/ systems coordinator/administrators.

**Curriculum Framework**

The second highest number of hours engaged in professional development in this study was focused on Curriculum Framework. The Curriculum Improvement Program had been introduced into schools in the previous year to the interviews for this study. At that time, teachers reported struggling to come to terms with understanding the curriculum changes and interpreting the impact this policy would have for them as teachers and for their students.
Teachers’ reports of Curriculum Framework PD across the period of the interviews demonstrated a continuum of implementation over time. Teachers’ indicated that initial CF professional development sessions were mainly focused on developing an understanding of the philosophy underpinning the CF and enabling teachers to read and discuss the document. As time progressed, PD sessions were reported to have focused on examining Student Outcome Statements (SOS) in subject areas as a guide to unit/course development, and promoting and endorsing student-centred strategies. This component of implementation usually incorporated “faculty time” enabling staff to examine, discuss, and develop pre-existing ideologies, resources, and practices. The third aspect that emerged was implications for assessment and reporting, with 20% of teachers indicating they were exploring IT in order to assist in managing the Student Outcome Statements.

**Response to Change — a Continuum**

Teachers’ initial reactions to the curriculum changes were doubt, concern, and discomfort at the amount of additional work these changes were likely to produce. Three of the newer teachers readily embraced the ideals of increased student-centred teaching following up on strategies they had commenced in preservice programs … “models of teaching and cooperative learning”, however, some were disappointed student-centred strategies had not been addressed in preservice education.

During the first CF programs teachers’ reported being overwhelmed by the amount of associated documentation they were required to read and comprehend … “We’ve got books and journals ... you name it, we’ve got it. The amount of stuff to read, it’s ridiculous”. Teachers reported the rationale underlying this initial PD as designed to assist teachers to come to terms with pedagogical “philosophical changes”. Some teachers also felt that this was a form of “softening us up to the massive changes that are ahead”. Two teachers reported being cynical about the documentation provided and the approach to the curriculum changes promoted by presenters …

it was basically completely free of hard information, it was all, ‘this is going to be the best thing since sliced bread, it’s going to help everyone’, but it didn’t actually say anything.
Teachers interviewed during the initial implementation phase displayed considerable discomfort, lack of clear understanding and in some cases anger at the magnitude of the change ... “it’s just so big where do we start?” Most of the PD concentrated on a global approach, often referring to “overarching statements and underpinning philosophies” leaving many teachers feeling unsure of how this new curriculum improvement policy was to be translated into the classroom.

Subsequent interviews demonstrated that most teachers (90%) were conversant with the philosophies of the CF and were satisfied or at least resigned to this curriculum change ... “this change is coming in. We just have to get on and make it work”. They reported having no difficulty either understanding or embracing the philosophies ... “this was only what any good teacher believed anyway”. Teachers reported the next priority as relating to assessment and reporting ...

what we’re looking for is ... the more practical information about testing, reporting, recording and all of those sorts of things that become inevitable when you get to the point of implementing the curriculum changes.

Some were critical of how little support material had been developed related to assessment. Others indicated that this lack of knowledge on how to assess and report was affecting how they taught and/or how they structured a unit ...

They keep talking about portfolios, where do we store these things, how do we report on it ... all these things will determine how we deliver a particular unit. If we don’t know how we’re going to report on it, then all the assessments that we do might be irrelevant.

**Expert Support**

Lack of expert assistance in interpreting the specifics from the Curriculum Framework document was a consistent issue raised by nearly 90% of the teachers in this study ...

an atmosphere that pervades CF professional development at the moment, where even the presenters don’t have answers to the questions ... so there is a degree of frustration experienced in any professional development ... at the moment.
The lack of definite answers from experts/presenters was consistently reported as a "flaw in EDWA strategy of implementation" resulting in distress, irritation and/or frustration when these were not forthcoming. In PD where it was reported that assistance was not supplied the effectiveness rating dropped. Frustration was frequently aimed at presenters. Most perceived a presenter's role to be providing advice and guidance in assisting teachers to make the CF legislation work as a representative of EDWA or the WACC. Numerous teachers (80%) reported dissatisfaction with repetitious, impractical or condescending PD or presenters. Two teachers reported specific incidents where presenters had been asked questions that they appeared unable to answer and subsequently became defensive or offensive, reacting in an inappropriate manner … “I just found it shocking” being “literally shouted at” by the presenter.

**Pace of Implementation**

Implementation pace appeared to be variable across the schools within the sample. Some teachers reported that their administration was recommending slow incremental steps in implementing the curriculum changes while others had gone “full steam ahead” or “gung ho”. Teachers in the schools that were taking a measured approach reported …

*One thing that’s been very good, ... is that it’s all been very much trial, we haven’t been forced in terms of YOU MUST DO THIS, ... but most of us are doing more ... because we are not being told we must do more ... the reverse psychology bit.*

Two teachers indicated this considered approach allowed teachers to “trial” innovations in their own classrooms, reflect on what they had done and then examine future directions … “which is good because it’s allowing everyone an opportunity to explore it themselves”.

These positive implementation reports contrasted with many others (65%) who indicated that their schools were adopting a too-rapid approach to implementation. A teacher described the effects of this precipitous approach as … “we’ve got a school full of burnt out teachers”. When teachers were queried as to what the perceived motivation was for moving ahead of schedule it was frequently indicated that
administration staff perceived it as an opportunity to raise their personal and school profile in the eyes of the employer ... “they’ve been trying to do it to get it into their CVs so they can get better jobs elsewhere”. One teacher expressed concerns that ... “it’s just so divisive. On the one hand you are wanting to do the right thing and honour the school’s decision, but on the other hand,... there are questions that we just can’t answer”.

**Tensions Between Lower and Upper School Systems**

Some teachers, particularly those who had a number of upper school (Years 11 and 12 – Post Compulsory) classes, detailed their philosophical tensions with CF and the Tertiary Education Entrance (TEE) examination system. These teachers (10%) indicated that until the WACC resolved the conflict between student-centred approaches and content-driven post-compulsory examinations, teachers would be forced to adopt more teacher-centred methods due to this conflict in outcomes ...

> you have now Student Outcomes coming in to it, where you are going back to student-centred and all this wonderful stuff which we all know is very sound teaching, but we are then teaching to a Year 11 and 12 course, which is really content driven and until they resolve that, teachers will forever be cynical until they resolve what they want to do about Year 11 and 12.

This dilemma translated into reluctance to adopt student-centred learning strategies in lower school if the students were going on to TEE, as this examination was predominantly assessing content not process and students may be disadvantaged.

**Student-centred Processes**

Due to the CF emphasis on student-centred learning, a small number of teachers in the study indicated they had been actively seeking teaching skills related PD, particularly student-centred processes, critical thinking and cooperative learning strategies. Even though these teachers were motivated to adopt these strategies the PD they reported attending had been ineffective in altering their regular classroom practices. Most of the teachers seeking student-centred PD have been relatively inexperienced teachers or those in the latter career stage of 19 years and onward. The more experienced teachers reported seeking new ways of teaching ... “Curriculum
Frameworks is the big thing and you want that under control... I mean after teaching for so long you like to go get fresh ideas ... new activities to do”.

**Faculty Time**

One major advantage to CF professional development was the increased time allocated to allow teachers to engage in discussion and preparation within faculty groups. Teachers who had engaged in faculty time reported that it was useful and productive with some stating that ... “working with someone else was great”, “it was lovely. Yes, thoroughly enjoyable” “it made sense to develop them [programs and materials] with my peers ...I had to do it so I might as well do it with someone else”. Some felt that it was useful to halve the work by doing it with others.

**Other Policies**

**Middle Schooling**

Middle schooling PD represented 2% of the total PD hours in this study. Four schools represented within the sample appeared to be investigating or proceeding with restructuring to become middle school campuses. Responses from teachers related to PD on middle schooling ranged from enthusiastic to hostile. The depth of emotional response appeared to be linked to teachers’ perceptions of their level of control and input into the decision-making processes. Four teachers reported the PD as being presented as an information session for staff to ascertain if this was the structure the school should adopt, however, a number of staff expressed doubts as to the genuineness of the consultation process ... “it was seen by some staff as being a fait accompli, that ... District Office and the ‘powers that be’ had made the decision and they now wanted to ... give the staff some input so they could say at least they’d been consulted” “the Minister had made up his mind what he wanted and pretty much everyone else had to fit in around that”.

Others in the school were disturbed by presenters’ apparent biased perspective that was presented, while others resented time being taken up discussing middle schooling restructuring rather than being able to prepare for the start of school ... “I was really angry and annoyed this year when we... came a few days early to school
and we did all this stuff about middle schooling when I could have been getting ready for school!”.

Others were less emotive regarding middle schooling PD with some perceiving possible advantages to students and to the school from this form of restructuring. One teacher had been nominated by the Principal to attend a conference … “it was suggested that I do it … which is a sort of fairly forceful suggestion, when your boss says ‘it would be better if you do it’”. Although this teacher felt obliged to attend the conference he/she expressed interest in middle schooling and the perceived benefits for boys’ literacy and numeracy in the transition to high school.

**Managing Student Behaviour**

Managing student behaviour PD represented 1% of the total number of PD hours in this study, even though it was a frequent issue raised by teachers. Managing Student Behaviour PD, consisted of personal communication skill development, examination of EDWA policy and/or development of school protocols for management and discipline procedures. Many stated (60%) that they had engaged in PD on MSB procedures or had requested that this be accommodated in their in-house PD days.

Managing student behaviour appeared to be a source of considerable friction between teaching staff and school administrative staff (eg., Deputy Principals and Principals). It was reported that friction was generated when administration staff, did not support teachers in management or discipline situations. A frequent point raised by more experienced teachers (particularly those in pastoral care roles) was that management and discipline situations were adversely affecting teachers’ capacity to be effective in the classroom … “we would like you [school administration staff] to take note of what’s happening to us because we can’t teach the rest of the school population”.

School discipline plans were a confusing aspect to new teachers (2 teachers) who expressed disillusionment regarding the ideals of the policy contrasted with the reality …

*they [administration] stated that things worked in this order and that it was a very smooth transition but now having lived through the MSB policy you just see how ineffective it all is and ... it doesn’t actually work the way*
that they are telling you it worked. So in a way they are not preparing you for the walls that you keep running into when... according to their policy you shouldn’t be hitting these walls.

Stress was also identified by teachers as a byproduct of management conflicts in the classroom and between teachers and their administration. Two teachers indicated that their school was undertaking a revision of the MSB policies to amend the effectiveness, streamline the processes or to alleviate the time commitment on teachers... “we’ve abandoned our withdrawal room system this year and we’re using ‘buddy teachers’ more... to be more effective and less time consuming on the staff”.

**Performance Management**

Around 20% of the teachers reported attending performance management professional development. Numerous others discussed the PM process without reporting on professional development. All of the teachers in this study were less than enthusiastic with this policy with comments ranging from total indifference... “you have to make a program about what PD you are going to have in order to achieve the goals that you want to achieve, I guess”... to hostility... “we’ve had people saying... “please don’t feel threatened by it, but you’ll do it anyway although it should be open and unthreatening, it’s not”. Some indicated that PM was “Political gymnastics... a waste of our time”. One teacher had undertaken the training program in order to relay the professional development procedural modules for his/her school staff reflected...

* performance management process in government schools has taken the very worst parts of performance management in industry and adopted them and left the very best parts off as a system of improving professionalism, encouraging people [and] rewarding people who do better themselves or excel... using it as a way to decide whether PD funds are allocated to particular people and... unofficially monitoring staff... without giving the rewards.

Another perspective expressed by 20% of teachers was that “PD should not be tied too closely to Performance Management” because the unequal power structures
inherent in the process rendered it ineffective as a personal development tool ... "It's very much of a powerful, talking to the powerless".

Teachers who were undertaking more than one role in the school, expressed concerns that they were being assessed on one role and not the other or a conflict existed related to which role should be managed ...

There's an interesting dichotomy there. Having two jobs ... the PD he [the HOD] would see as me requiring would be quite different from the one required for my other position. At the minute, I tell him what I think is a good idea and he agrees with me.

**Students at Educational Risk**
The Students at Educational Risk (SAER) policy was implemented throughout public schools in 1999 as an aspect of the Curriculum Improvement Program. This policy related to identifying students who had “low literacy or low level ability of reading, writing and comprehension”, numeracy problems or who were not achieving their potential for a variety of reasons and “target ways of improving” or addressing student needs. Professional development related to this policy was reported consistently in lower socio-economic status (SES) schools. English teachers or those in pastoral care roles frequently mentioned this policy. Very few reported PD as being tailored to satisfying SAER students’ requirements. One area that was specifically mentioned as useful for these students (SAER) was in utilising IT in project work or “independent education programs” with a variety of interactive “educational software packages”. Technology was reported as an effective motivational tool for both students and the teacher.

**Consultation**

Teachers were asked if they had had input into school decisions regarding the choice of PD for in-house PD sessions. Their answers were coded as affirmative, negative or a mixed response.
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<th>Response</th>
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Table 7.18: Teacher input into in-house PD agendas?

Almost half of the teachers (46%) responded that they did have input into in-house PD sessions/agendas. Although these teachers responded in the affirmative their comments frequently demonstrated mixed emotional content. Six teachers (12%) indicated that although they had some input it was frequently on a selection or pre-organised/pre-selected set of priorities outlined or supplied by their administration …

"... the school priorities ... we look at what we’d like to focus on within the school for the following year. Some areas are compulsory, Curriculum Frameworks and now, IT.... There are a couple which are dictated and a couple by choice. Obviously we can’t have too many but we do get some choice”, “Learning Technologies [staff] sent out a proforma to all faculties asking what PD they all wanted in the form of IT and tried to address that need.”

These teachers’ reactions to choosing from a limited range of options ranged from frustration to a balanced perspective that teachers needed to also fulfil EDWA priorities … “usually a priority for your school … say, literacy. But then if the government comes out and says, “You’ve got to do Outcome Statements”, you’ve got no option, that’s it”.

Processes for providing staff input were explored. Eleven teachers (22%) stated that they were able to have input via their PD committee. This input ranged from teachers assuming that members of the PD committee would “do what they think is best for the staff as a whole” to individuals presenting PD needs directly to the committee … “if you perceive there is some problem or you would like to see something addressed … then you put it in writing … they look at it and say yea or nay”. The effectiveness of the PD Committees was reported as variable with some demonstrating trust in the functioning of the committee to those who indicated …

they [the members of the PD Committee] don’t go out of their way to organise things that aren’t going to be useful, but personally I didn’t find a lot of the things that we did last year useful.
Two teachers acknowledged “the decision to actually do something isn’t always actually the PD committee’s”.

Eight teachers (16%) stated that they were able to have input directly or through staff voting on particular PD options. Two teachers went directly to their HOD or other administrative personnel to request PD for in-house sessions. Most of these teachers were very assertive, confident and were frequently holding or had undertaken leadership roles.

Over half (52%) of the teachers reported that there was no consultation with staff regarding the selection of PD for in-house sessions. Again teachers had varying responses with many comments reflecting a range of emotions within the one response. Half of this group (50% of the group) was indifferent ...

“... doesn’t really bother me to be honest” ... or felt “that if it was left to input from all staff... nothing would ever be decided. We have a hard enough time getting a consensus among staff for small issues, something like this would probably never get resolved.”

The other half of the group (50%), however, expressed feeling “irritated” or were “angry” and “frustrated” at “spending three days” without having any choice. One teacher deliberated over his/her answer before answering ...

Oh, it’s – I just think that - let me phrase this properly – I don’t like it! [emphatically] ... I just find that it’s frustrating, because it’s something you don’t want to do ... you just look around the place and people are just not taking it seriously.

Although half of the group displayed complacency or resignation to others selecting PD for in-house sessions, as respondents discussed the issue of choice, the underpinning theme to emerge from almost 80% of the teachers was the importance of self-determination ... “people are making decisions as to what you need and they’re not really asking you as to what you feel you need”.

Six teachers (12%) displayed disenchantment regarding the internal input/consultation processes within their schools. They commented on how processes were set up to appear that teachers were “part of the process” ... “whether it [the
form the teachers filled out regarding PD options] got looked at I don’t know” “I think it [direct suggestions for PD] was ignored”.

**Information Technology Teachers**

Eleven teachers in the sample (22%) were teaching or working within the Information Technology area. Eight of the eleven were predominantly teaching/working in the IT Learning Area. Levels of skill and responsibility varied from a fractional teacher (0.1FTE) to full-time Systems Administrators (SA) with reduced or no direct classroom teaching. Some were Teachers in Charge of their learning areas while others were not actually teaching IT but were IT coordinators for their school. These teachers all shared similar concerns and perceptions related to IT and the IT focus for schools within the public education system.

Information Technology was a major content area and represented 39% of the total number of PD hours. Technology PD ranged from basic courses that covered how to turn on a computer and format a disc, to Microsoft Certified Professional (MCP) courses for network administration. All of the IT teachers (100%) had facilitated PD for their colleagues in their schools.

<table>
<thead>
<tr>
<th></th>
<th>All resp</th>
<th>IT (maj/min) Tchrs only (n=11)</th>
<th>Other teachers (n=39)</th>
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</thead>
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<tr>
<td>Total hrs IT PD</td>
<td>7806.0</td>
<td>6305</td>
<td>1501.0</td>
</tr>
<tr>
<td>M hrs/tchr</td>
<td>156.0</td>
<td>573</td>
<td>38.5</td>
</tr>
<tr>
<td>M hrs/tchr/wk</td>
<td>2.6</td>
<td>10</td>
<td>0.6</td>
</tr>
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**Table 7.19: Hours of technology PD – comparison of information technology teachers with colleagues from other learning areas.**

Most of the IT professional development hours were undertaken by IT teachers (80%) with teachers in other subject areas participating in 20% of the total IT professional development hours. The mean number of hours of IT professional
development engaged in per respondent per week was considerably higher for IT teachers (10 hrs) than for teachers of other learning areas (0.6 hrs).

**Professional Reading**

Time engaged in professional reading was also a distinguishing feature in this group of teachers. All IT teachers were engaging in considerable hours of professional reading. The amount of reading was linked to the teacher’s IT position. Those who had responsibility for hardware or systems administration were engaging in extensive reading (~6.5 hours per week) in order to acquire the knowledge to advise, develop and support IT networks …

> it’s increasing my pool of knowledge, I often find out little snippets that you ... go and implement straight away because it might solve ten problems that you’ve ... been having and it’s one little piece of code in a program somewhere that stops all the other catastrophes from occurring.

**Technology Issues**

All the IT teachers were passionate about technology. Over half of the IT teachers had originated in other learning areas and had moved into IT because they were interested, a need existed in the school and they were the only person with the necessary expertise, perceived it as a growth area and/or a means to move out of teaching into business.

**Increased Demands**

Some senior teachers or those responsible for systems administration duties (6 of the group of 11) reported regularly being in conflict situations with school administration over demands of the IT position and PD requirements …

> I actually spat the dummy ... I needed some time to do something ... I had put in all this voluntary work and they thanked me, I suggested that in the long term process we needed to give ... some time-off to look after this stuff, like a point one, or perhaps look at some allowance ....

All of these senior teachers indicated that school administration needed to realise that IT matters affected the whole school and that it should be prioritised.
Most of the IT teachers (90%) were also carrying out routine technical work to save schools the expense of a technician …

*they only want you to fix up the rest of the world’s computers when you’re a computing teacher…. you know, it’s just ridiculous … they ask you to be a computer teacher,… to be a technician,… to be a manager.*

The consensus was that there was an expectation of competence, not only in teaching IT, but in technical aspects … “be all things to all people”.

Many of the IT teachers (70%) were seriously concerned at the “the amount of work” and time required to keep school IT systems running and the toll it was taking on their quality of life, health and wellbeing …

*I’m in there at 7 leave at 5, work in the evenings either online or reading and I have worked every holiday since the school was cabled because we can’t afford the downtime during term-time … my Doctor has said that enough is enough - I have to back it off a bit.*

Similarly, those who had teaching loads expressed concerns about how the demands for establishing and administering the network had affected their teaching …

*contacting people to find out what was required, [to fulfil the requirements of the Learning Technologies policy] … about cabling at the school, … electricians, … about computer hardware,… software, servers, was days – days … I had innumerable phone calls throughout the day, I would have to abandon classes sometimes to do that. I had people coming in at 8 am or 7:30 in the morning … so that I wouldn’t have to leave classes, they came in after school so that I could talk to them.*

One major problem raised by over half of the teachers was the simultaneous implementation of Learning Technologies and CF policies …

*most of that was pretty much done by myself [the development of the Learning Technology plan] … everybody was busy with Student Outcome Statements and I decided….well if we let it all go under, we won’t get the money [EDWA technology grant], so I was just brainless in doing it all.*
Many (60%) of the teachers indicated they felt overwhelmed by the enormity of the task and the “huge responsibility” of developing their school’s technology plan with no assistance, particularly with the amount of money that was to come to the school if the plan was formulated appropriately …

I came home and ... sifted it [the information documentation] and then started the real work of understanding what this money was about. I had no idea we were talking thousands of dollars, I really didn’t.

Most teachers resorted to contacting colleagues around the state to find out how they were proceeding … “find out how they’d spent the money and... what they would and wouldn’t do again”.

**Vandalism**

Three quarters of the teachers reported concerns with students interfering with the computer systems. Half of the IT administrators reported spending considerable time investigating mechanisms …

to try and stop students from gaining access to the interior of the computing system, ... thereby ripping it down for everybody else, there’s some malicious type people out there that’s all they want to do.

One teacher related a case where a student had “hacked into” the teachers’ level of access and had deleted all files in the school thereby destroying all assessments for that semester. Knowledge on how to protect school systems from the interference of staff was also important to systems administrators… .

*Probably staff are the worst in the school for touching and fiddling ... which often gets them into trouble and then they...drop their bundle, turn the machine off and walk away ... I’ve got to come back and try to fix it.*

**Legal Ramifications**

Some indicated that there appeared to be a lot of misinformation concerning teachers’ liability related to IT teaching. A group of five teachers discussed PD they had sought out to clarify the legal implications for teachers. Legal issues related to duty of care with Internet usage … “I didn’t want to be in the firing line for parents suing me for allowing their students to look at ... restricted ... pages”. A clear need
for clarification arose as to "where the school stood [legally]. Where staff stood, and
where students stood" and also for licensing matters.

**Recognition**

Lack of career path or recognition of effort or responsibility was a source of irritation
for most (60%) of the IT teachers. Technology was reported to be a growing area
requiring considerable time commitment and involving responsibilities in decision-
making yet few of the schools had substantive positions. Classroom teachers reported
handling the full burden of HOD or TIC duties ... "it all came across my desk and
there was just oodles of stuff"... without the benefit of a Special Responsibility
Allowance (SRA) or time off from teaching to undertake the additional duties.

A third of the IT teachers were distressed at CF implications for them and their
positions as IT teachers in schools. When queried further, they reported that the focus
for integrating technology over all curriculum areas had been interpreted (by District
Office and WACC staff) to mean that IT was not going to be a distinct learning area,
rather was to be integrated in all other subject/learning area in future years. They
were told that this meant they would be out of work because teachers were to have IT
skills thereby negating the need to teach IT.

**Teachers in Promotional Positions**

Over half (58%) of the teachers in the sample were performing additional non-
teaching duties. These included Heads of Department/Teachers in Charge and
Coordinators of year groups, MSB, School Council, Vocational Education and
Training, or Technology. Twenty eight percent of the total sample were Heads of
Department (HODs) or Teachers in Charge (TICs).

<table>
<thead>
<tr>
<th>Promotional positions</th>
<th>Tech</th>
<th>Other</th>
<th>HOD</th>
</tr>
</thead>
<tbody>
<tr>
<td>( F )</td>
<td>21</td>
<td>15</td>
<td>14</td>
</tr>
<tr>
<td>( P(%) ) of sample</td>
<td>42</td>
<td>30</td>
<td>28</td>
</tr>
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</table>

Table 7.20: Teachers and promotional positions.
These promotional positions were either substantive (permanent) or acting (temporary). While substantive HODs were on a higher pay scale for undertaking these higher duties, some of the TICs were not receiving a Special Responsibilities Allowance (SRA) but had "release time" from classroom teaching in order to carry out the duties required by the position. Others were receiving neither time release nor payment. "Other" referred to teachers who were undertaking additional duties or had an additional position apart from their classroom teaching role, for example, Year Coordinator, School IT Systems Administrator, School Council Coordinator, Coach, Student Guidance Officer, School Planning Officer, Vocational Education Officer, Community Liaison Officer, MSB Officer and/or other pastoral care roles. Similar to the TICs, some teachers who were carrying out "other" duties were being paid a SRA, others were provided release from teaching time, and yet others were receiving neither.

**Professional Development Philosophy**

Most HODs had very distinct philosophies about PD and how it should be established in the schools and were able to clearly articulate their views and beliefs. A recurrent theme was the need for PD to be more than just "one-off sessions" or to be more effective than what is currently provided. Another HOD felt strongly that the effectiveness of PD would be increased if it was embedded within the school day and prioritised by inclusive timetabling. This theme of teachers working together as "effective PD" was reiterated in responses from teachers about working in faculty groups or with colleagues from other schools to achieve set goals and the resultant positive outcomes.

All of the respondents who reported undertaking additional duties had made strong statements concerning the need for increased PD to assist them to carry out their duties more effectively. Many (90%) of this group had described numerous PD that was directly related to their positions and stated that their future PD needs tended to revolve around their non-teaching role. When queried, (70%) most indicated they had their classroom teaching "under control" and only required up-dates in terms of syllabi changes, developments in subject content, or governmental requirements (eg.,
current changes related to CF implementation) and these needs would be supplied through in-house PD or via professional associations.

The HODs frequently indicated that PD should always have a direct impact on the classroom, although this view was not exclusive to HODs or other superordinates. Some (40% of HODs and coordinators) felt that policy implementation should be handled by hierarchically superior administration personnel (e.g., deputy principals and principals), rather than wasting teachers’ time. Concerns were raised about “the amount of extra work we’re getting or being given to do with no extra help or extra time and not too much more resourcing”. Being told to “work smarter” without “the resources” was resulting in considerable irritation. Three HODs reported that they were told in briefings they needed to “delegate” but this was not reasonable because “teachers [were] all flat tack anyway” and HODs ended up doing “menial task(s)” “because they have all got a bit more time than other teachers”.

In contrast to the sentiments expressed by some that Deputy Principals and Principals should shoulder the burden of implementing policy, others indicated that HODs and TICs and those aspiring promotion needed to become involved in educational reform and how the process occurs “away from my own subject curriculum to a more broad sense about education and where we’re headed. I have a more whole school interest in terms of what we’re doing and how we should be doing it”... and have a more “unified” approach.

One concern that was raised by less than half of the HODs with becoming increasingly involved in school decision-making was the frequent tension between work commitments and family ... “To do that you need to spend time, and you know, when you’ve got four or five meetings a week, if it’s out of school time then that does make it a bit harder.”

Other Duties
Almost a third (30%) of the sample were performing “other” duties other than teaching and as a group shared common concerns regardless of teaching situation or subject specialisation. Most were more experienced teachers (5 or more years
teaching experience). Not all had applied for additional duties by choice but rather had had to undertake them in order to be able to cope in the classroom or had been expected to do so by superordinates within the system.

Teachers’ reported a tension between the demands of the teaching and that of their support role. They frequently expressed a desire to perform better in both areas but did not have sufficient time within the school day to do both as well as they would have liked. Many (80% of this group of teachers) expressed concern and resentment with the increase in workload …

> there’s a good deal of hoo hah and go on because we had … a YEO [Youth Education Officer] and he did all the stuff with the Student Council and... the Ball and ... they gave him the flick at the end of XXX ... all these things that he did were being shovelled back on to the year coordinators and we just said, take a hike we’re not doing them. So things got very messy for a long time and they’re still not sorted out now.

Others felt a responsibility to undertake additional duties due to the fact that there were no other volunteers or that they were natural candidates because of a particular interest or expertise related to the job … “probably it was my own choice and probably because nobody else wanted to. It was a huge commitment but I just felt we needed to have representation”. Although most indicated that these duties were necessary it appeared to increase their workload and stress.

Others felt a sense of responsibility to the school due to being the head of a specialist program. One such head indicated he/she felt that the school staff was relying upon him/her to get a specialist sports program running to assist the school to remain open and financially viable ... “it is a very important part of the school ... due to our numbers decreasing I think I have to be fairly conscious of its success to keep it up and running.”

**Heads of Department**

Most (70%) of the HODs reported being concerned with assisting and supporting their staff particularly during a time of considerable change. Almost all HODs were conducting PD for their colleagues for a variety of reasons. Some felt that this was
required of them, not only in terms of leadership, but also for system-demanded implementation of policy. Some indicated that this leadership responsibility was placing them under stress because they were being expected to provide direction on the current curriculum changes but were struggling as much as their staff to "get a handle on it". This perspective was reflected in a comment made by a teacher regarding the HOD in his/her faculty ...

our Head of Department found it confusing ... they didn’t really understand what to do and they were very, very hesitant ... and I think that made the rest of us feel a little bit confused and wary. I think it just went from there, so I suppose if they really didn’t have a handle on it, it made us think, well why do we have to try to get a handle on it if they can’t?

The newer or less experienced HODs or those in “acting/temporary” positions often reported experiencing difficulties in coping with the increased workload and knowing how and what duties to perform ...

it’s killing me, it’s a lot more work [conducting the PD in lieu of the 2½ days at the conclusion of the year] ... this is part of my HOD duties I guess, I’ve got to do my curriculum plans, strategic plan, all those sort of things. I’ve never done one before...and I’m not getting much help in.

This group indicated that they were relying on the assistance of colleagues to provide PD and induction into the intricacies of the role.

EDWA Professional Development Trial

In the year prior to this study the Education Department of Western Australia initiated a PD trial which provided staff in schools the opportunity to trade-off the final 2½ days of the fourth term of the year, if they participated in 15 hours of PD out-of-school time during the year. Respondents in this study who had participated in the EDWA professional development trial were surveyed regarding their perceptions of this trial. Participation in this trial varied with some school staff voting as a whole to be involved and other schools allowing individual faculties to independently decide whether to take up this option, with some faculties agreeing and others voting against being involved.
<table>
<thead>
<tr>
<th>Responses</th>
<th>f</th>
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<tbody>
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<td>56</td>
</tr>
<tr>
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<td>18</td>
</tr>
<tr>
<td>Unsure</td>
<td>3</td>
<td>6</td>
</tr>
<tr>
<td>Faculty decision - Yes</td>
<td>6</td>
<td>12</td>
</tr>
<tr>
<td>Faculty decision - No</td>
<td>4</td>
<td>8</td>
</tr>
<tr>
<td>Total</td>
<td>50</td>
<td>100</td>
</tr>
</tbody>
</table>

Table 7.21: Involvement in EDWA professional development trial.

Over half (68%) of the teachers in the sample, stated that their school had chosen to participate in the PD trial. Eighteen percent specified that their school had not, with a further 8% stating that their faculty had decided not to participate. Six percent were unsure if their school had or had not due to being new teachers or new to the school. Six teachers indicated that their faculty had voted to participate. One of the teachers whose faculty had decided not to participate in this process stated that it was "strange" because their faculty was the only one who returned to the school on those final days yet he/she knew that other faculties "had not carried out the required hours". Some schools required their staff to vote (as a whole staff) for or against being involved, while others left the decision up to the HODs to organise their own staff. Other schools informed their staff that this was the process, and staff members were required to comply.

Teachers were asked to specify how many hours of PD they had been required to undertake in order to trade-off the last 2½ days of school. Some teachers had difficulty remembering and guessed that the required number equated to 2½ working days. Others indicated that the hours had been specified by their HOD, the Principal, and District Office or as a directive from the Education Department of Western Australia.

The number of "required" hours varied considerably with hours ranging from 10 (2%) to 20 (6%). The majority (36%) of responses were 15 hours. Ten percent of teachers reported being required to undertake more than 15 hours of PD to receive the trade-off 2½ days.

When teachers were asked if the required hours had actually been carried out, the overwhelming response was in the affirmative.

Results – Professional Development – Choice, Involvement, Effectiveness
<table>
<thead>
<tr>
<th>Hours</th>
<th>F</th>
<th>P (%)</th>
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<tbody>
<tr>
<td>10</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>12</td>
<td>3</td>
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<td>13</td>
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<td>15</td>
<td>18</td>
<td>36</td>
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<td>16</td>
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<tr>
<td>No response</td>
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<td>32</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>50</strong></td>
<td><strong>100</strong></td>
</tr>
</tbody>
</table>

Table 7.22: Number of required hours of PD.

Every teacher who had participated reported doing the required hours with some (5 teachers) stating ...

"Yes, heaps, way, way, way, way over. Oh yes, probably three or four times what was required in the course of the year" 'yes, more than. By a long chalk. I did something like 4 or 5 times that."

In cross-checking these responses with the number of hours spent engaged in out-of-hours CF and SOS professional development, all the teachers had indeed participated in more than 15 hours of CF professional development.

The PD content was divided into either free choice of content or CF related professional development. The majority of responses (93%) indicated that PD was required to be focused on work related to CF or Student Outcome Statements. Two teachers indicated that their school had allowed them freedom of choice of content for professional development.

Participants of this trial were asked to evaluate if the process of undertaking PD out-of-hours as a trade-off for last 2½ days of school, had been worthwhile. Over half (62%) of the teachers responded that the trial had been worthwhile. Seven teachers indicated that it was not worthwhile. A further six had mixed responses. Although the majority indicated that it had been worthwhile, their rationale varied. Three teachers unreservedly stated that the process was worthwhile because it had been time productively spent. Five teachers (of the 62%) indicated that it had been advantageous in working on PD during term time “when we’ve got energy and can make it meaningful” in contrast to the “the end of the year” when they were “dragging [their] feet”, “too tired to absorb new information”, “jaded, ... tired and
had enough". Additionally they indicated that having PD sessions at periodic intervals "gave us time to come to terms with things that we'd learned", "time to think about it as you go ... and make more use of it ... even trial a few things" and "put forward questions". It was also reported to be "good for team building too". Four teachers reflected that they liked the self-determining aspects "some choice about how you spent the time" "could look at what we wanted to do right from the ... start of the year" "rather than having to sit through a thing that was decided by the administration or the school management committee". Almost all (96% of the participants) indicated that it was "a lot more relevant to what we're doing in our classes".

Not all of the participants were enthusiastic. Six teachers indicated that they were resigned to having to engage in PD related to CF and SOS ... "we really had to do it anyway. I think it wasn't exactly 'let's spend extra time bettering ourselves', it was stuff that we felt was necessary to our survival" and reflected that as they "were already doing those hours, it was a bit of a silly question to ask really, in terms of the EDWA saying 'do you want to take the three days off in lieu of PD', (laughed and continued) 'Yeah, O.K.'". None stated that they undertook the extra PD purely to have the last 2½ days off school.

Three rural teachers stated that an added advantage in providing them with increased time was that they could use it in travelling back to Perth for the holidays. One of these teachers reported, however, that this may have actually been a disadvantage to staff who were moving to another school as teachers frequently used "one of those days [final days of term] to go and set themselves up in a new school".

A particular issue raised by a third of those involved was the impact on the organisation of individual faculties from not having the final 2½ days for "clean up". They indicated that not having the last couple of days "without the kids" had disadvantages in that there was no time to do "cleaning up and ... the little odds and ends that don't get done during the year". A teacher lamented the absence of the pleasant social functions customary at the conclusion of the year "the school has a different atmosphere and it's nice to wind down and talk to people".
Three teachers voted against or refused to be involved with the out-of-hours PD arrangements and came in to do the PD in the last 2½ days "because we’re busy enough, people who play sport on Saturdays and Sundays ... so we couldn’t get [a time] together to suit everyone". These teachers were concerned at the impact of out-of-hours PD on their families and felt that it was inappropriate to be required to be involved in this process.

Teachers were asked who had made the decision as to the content for the out-of-hours professional development. Six teachers indicated that the directive had come from District Office that they had to undertake CF related professional development. Most of the teachers (15) indicated their administration had selected the PD for them with 13 reporting that the staff had made the decision of what PD to undertake.

**Resourcing of Professional Development**

Teachers’ level of awareness regarding PD funding arrangements in their schools was gauged and the specific amounts allocated to individual teachers ascertained. Forty-three teachers (86%) were aware, two teachers were not aware, and two were not sure that they had a PD allowance from Education Department of Western Australia. Over half (52%) of those who knew they had a PD allowance did not know the exact amount, with some (12%) reporting that school PD funds were pooled so that staff could apply for PD reimbursement. Two teachers were unsure of their PD allowance reporting that “it was at the Principal’s discretion” and they had not been “knocked back yet” upon application for funding.

Professional development allowances ranged from $50 to $450 averaging at $150 for the 18 metropolitan teachers who provided a figure for their allowance. Six rural teachers (12%) indicated they had “some idea” of PD allowances and these varied considerably depending on the school’s distance from the metropolitan area. Professional development funds for rural teachers ranged from $78 to $1200 with the mean being $454. The teacher who reported having $1200/year stated that this amount had been recently increased due to the distance, travel and accommodation expenses involved in attending PD in the city. Another of the higher amounts was
$750, reported as an allocation for new graduates to assist them in accessing PD that would facilitate their settling into the distant rural situations.

Teachers were asked if these funds were sufficient to meet their PD needs and if they had personally financed their PD in the previous year. Twenty two percent responded that it was sufficient, over half (54%) stated that it was not, and almost a quarter (24%) were undecided as they were not certain of the exact amount of their allowance. Teachers were probed as to whether they had financed their own PD within the past 18-month period. Sixty percent had personally financed their own PD, 40% indicated they had not, although many of this group reported financing their professional reading and Internet research activities. Those who stated they had not financed their own PD tended to think of financing PD in terms of payment for courses rather than funding all forms of professional development. Personal financial support of PD ranged considerably from approximately $50 to an IT teachers’ expenditure of $3900 in one year for a Microsoft Professional course. Technology teachers were financially outlaying the most in comparison to other LA teachers due to the expense inherent in IT courses and manuals/texts. One teacher reported “some schools don’t let you have PD because you’re a temporary teacher and you’re not part of their staff”.

Teachers were asked how they felt about financially contributing to their professional development. Two thirds (66%) of the teachers were disgruntled, with three expressing anger and frustration about paying for their professional growth ... “Deeply pissed off! Because ... if I spend money to do it and I produce anything from it, it is not my intellectual property, it belongs to EDWA”, “Whew! Bitter!” Fourteen teachers (42%) felt strongly that they were undertaking PD ...

“ ... to become a better teacher for EDWA ... it should be paid for by EDWA or the school”, “$500 or $1,000 to finish a unit was more than I was willing to invest when my employer obviously didn’t seem to care.”

Three rural teachers bitterly resented the extra expense incurred from being situated in the country areas. Another five rural teachers emphatically stated “if it’s something that’s going to cost [them] then [they were] not prepared to pay out” particularly with the demands of young families ...
why should I take money out of my pay to pay for it ... If they want us to professionally develop ourselves ... well that’s fine, I’m giving up my time, I’m not going to give up my money as well.

Under a third (30%) of the teachers were complacent or resigned ... “I’d rather somebody else pay, but I accept it”, “a necessary evil”, “like any investment really”. Most of this group (13 teachers) indicated that the amount they had to pay out influenced their willingness ... “as long as it’s not way, way too much”, “the only thing I keep telling myself is, it’s a tax deduction” “but you don’t get it all back”. They also were adamant that they would be prepared to pay for the PD “if it’s something I really want to do myself”.

**Funding Issues for Technology Teachers**

Information Technology PD was distinguished from other forms of PD in terms of the issue of financial burden incurred by the participants. Most PD undertaken by IT teachers for the purpose of technical knowledge related to cabling, networking and systems administration was tendered by outside (non-educational) commercial providers ... “I needed to know things like about hardware and fixing things”. These commercial providers generally catered for industry, business/commerce clientele and therefore charged higher fees accordingly ...

*most courses ... would run into the hundreds per day, so you are probably looking at only getting one day’s worth of PD out of $150 [the PD amount allocated to this teacher per year]” “those courses cost thousands and there was no provision made even on a small scale to address those needs.*

Hence some teachers were paying considerable amounts of money for professional development. Most of the TICs and IT Coordinators indicated that they wanted and needed to undertake more commercial PD but were unable to afford it and the school was unable or unwilling to subsidise training expenses ...

*PD that I require is beyond my financial ability to do so. I’ve actually investigated ... individual units at XXX University and found that $500 or $1,000 to finish a unit was more than I was willing to invest.*

Many were angry about the lack of funding for IT teachers ...
I thought that was ridiculous actually, considering what they want us to do.... I’d like them to find out what my needs are and then find me a course that’s tailored to my needs within $100 [budget range]. Additionally, professional reading texts were more expensive than regular teaching texts with IT manuals costing around $80 and upwards.

**Gender Factors**

**Career Stages – Inexperienced**

Differences in perception linked to gender were not initially apparent. That said, as the analysis of the data continued trends did emerge. These differences became clearer when examining teachers’ responses in relation to career stage. In the relatively inexperienced teachers (0-3 years) group, males were very vocal concerning the school-wide decision-making processes within their schools. Most were critical and/or cynical regarding system-wide PD or perceived political agendas. Female teachers appeared to be less passionate in their perceptions regarding system-wide or policy-orientated PD, unless these impacted negatively on time or funding available for teaching related professional development. Both males and females were avidly interested in PD that was directly related to classroom teaching or management of student behaviour. Most of the female beginning teachers reported that having a “temporary” teacher status influenced them to undertake more professional development.

Males more frequently reported interest in advancement and promotion and the need to plan a career. Most were involved in school committees or related activities that would enable them to “be noticed” by school administration and/or be advantageous for promotion. Female teachers did not appear to display as much awareness of building a curriculum vitae or the desire for promotion, rather, were primarily focused on their teaching. Both males and female teacher were very vocal about perceived inequities in the Education system. When discussing their perceptions of the educational system, males displayed more cynicism and anger, whereas the females attempted to provide a balanced perspective even when they obviously felt strongly about the subject they were discussing.
Career Stages – Experienced
Similarly, in the more experienced (4-33 years of teaching) group males demonstrated more interest in promotion than their female counterparts. Four of the five HOD/TICs in this group were women, 7 of the 9 who had an additional role apart from their teaching were male. Teachers who overtly stated they had no personal promotional aspirations or displayed distaste at advancement or colleagues who were avidly seeking advancement were female. A third (30%) of female respondents indicated that promotional aspirations “got in the way of getting something done” and tended to link politics and career advancement with interfering with the efficient working of the school.

A gender-related concern expressed by one female teacher was that taking maternity leave had adversely affected her opportunities to be allocated the more taxing units within her subject specialisation. She related that upon her return she was perceived as a “married mum, busy, young kids” and as such was only allocated “soft options”. She resented this and felt that she was more than capable of teaching the more taxing units in her subject area regardless of her marital or parental status. She indicated that she had undertaken more PD than she had before to validate herself in the eyes of her Head of Department.

A quarter of the teachers in the more experienced career stages expressed concern with undertaking out-of-hours PD due to commitments with young families. This concern was raised more frequently by males than female teachers and related to the requirements of equally caring for children after school, weekends and holidays. They indicated that these family commitments limited their availability to undertake out-of-hours professional development. A common reason for “passing” on PD opportunities was supporting his/her spouse with their work/teaching/PD commitments.

Only two experienced teachers appeared to be disengaged from PD as a whole, both were male. One appeared to be angry regarding system-based PD and felt that all PD was a “waste of time” while the other was complacent about ongoing learning, stating he had “so much teaching skill and experience” there was “no need” to do professional development. Another male teacher was not interested in PD related to
his teaching, rather, he held strong views that teachers should engage in personal development which provided them with a broader perspective making them a more balanced and effective teacher.

In the total sample, the IT specialisation had more male teachers than female, with six of the eight fulltime IT teachers being male. An observation made in the interviews was that “most of the people in technology, especially ... that hold a position of power tend to be male teachers”. One teacher pondered this and proposed that the merging of largely female “business department(s)” and predominantly male “computing department(s)” in secondary schools may have resulted in a gender bias in leadership, and as the computing area had received “increased responsibility for school networks” therefore Teachers in Charge were more often male.

Five of the six male fulltime IT teachers indicated that they perceived IT expertise and PD as a “stepping stone to a possible career change” into industry or business. None of the female IT teachers displayed any desire to leave the education system, rather, were totally engrossed in teaching and developing IT opportunities for their students.

**Educational Culture Factors**

This section draws upon teachers’ insights about the teaching situation, how policy affects them both in their workplace activities and emotionally, and into the collegial relationships that exist amongst staff in secondary schools around the state. It outlines teachers’ views on matters of choice and decision-making, particularly in relation to PD, but also in school functioning matters. It includes teachers’ perception of leadership – in managing change and stress, both at the school, district and central governance level.

**Collegiality and Networking**

From the interviews with secondary teachers it became clear that teachers preferred work and PD environments that provided opportunities for constructive dialogue and interaction with their faculty colleagues. In teachers’ reports of PD activities,
working with others (both within their own faculty and from same-subject faculties in other schools) was perceived to be highly effective professional development. Whole-school PD was frequently reported as less effective because subject and individual specificity was lacking.

There appeared to be an increase in PD interactions between faculties due to the implementation of the Learning Technologies Policy, whereby IT teachers have been assisting their colleagues in other faculties and/or learning areas. These IT professional development sessions were positively received by teachers. Another reported change in interaction patterns between teachers in different faculties, was in schools that were setting up middle schooling learning teams. Teachers’ reports of working in these teams varied across a spectrum from positive to negative.

**Decision-Making and Leadership**

Teachers displayed a wide range of reactions to decisions of their administration and other related decisions that affected them and their environment. This ranged from support and understanding of the pressures that Deputy Principals and Principals were under, to outright cynicism and anger at decisions by administrators and the lack of consultation and sympathy for the workload teachers’ perceived themselves to be shouldering. The two senior administrators interviewed in this study, reported being under pressure from higher administration structures within Education Department of Western Australia. They appeared to view some of their teachers as having reduced motivation to undertake PD and were relatively intolerant of that perceived attitude. Their opinions appeared to be generated from their teachers’ reactions to mandated PD on in-house PD days. From interviews with two senior administrators, 12 HODs and 37 teachers it appeared that individuals at each level had a varied perspective of staff at the other levels. That is, teachers tended to be less tolerant of HODs and senior administrators, and administrators less tolerant of teachers. HODs demonstrated a more balanced perspective than teachers, with many expressing sympathy or understanding of teachers’ duties because they themselves were still teaching. They also were able to sympathise with their school administrators due to having to carry out administrative duties within their own faculty.
From open-ended aspects of the interviews, teachers indicated that Deputy Principals and Principals did have the ability to influence or affect the attitude of their staff in either a positive or negative manner. Teachers' attitudes to their administration appeared to be spread over a continuum with some teachers speaking well of the perceived intentions of their administration and their support of classroom teachers, while at the other end others were very cynical and/or critical. This appeared to be linked to a number of factors:

- How extensively members of the administration included teachers in the decision-making processes within the school;
- Whether the decision-making processes (PD and other advisory committees) appeared to function legitimately in representing teachers' choices or were perceived to be a device of administration;
- How closely the school decisions were following a perceived political agenda;
- Whether the "alleged" political agenda was perceived to be of benefit to the school or to individual careers of administration personnel or other high profile senior staff;
- How much money was allocated to each staff for PD support and the ease of accessing PD funds.

Two teachers expressed appreciation of their administration because these senior administrators were presenting a balanced approach to policy implementation to staff rather than pushing the implementation ahead of schedule at the expense of their teachers' capacities to develop materials. One these teachers discussed his/her administration in extremely positive terms. This teacher's affinity for his/her administration had developed largely due to the support received in matters relating to discipline and pastoral care. Additionally, this teacher reported the Principal always "made himself available" to discuss anything that was concerning staff ... "caring and truly collaborative leader". This Principal was "different" ... "he made an effort to close the gap between ordinary teachers and admin ... he genuinely cares and that comes through as sincere".

Results – Professional Development – Choice, Involvement, Effectiveness
Policy Implementation

A distinct division existed between teachers and their employer (EDWA). Many teachers expressed disappointment and irritation with the number of policies being implemented simultaneously. Many stated that these Government policies had little positive impact on students' learning but were perceived to be a means to make teachers more accountable.

Many of the more experienced teachers, reflected that over the past 10-15 years teachers have been coping with numerous and extensive changes/reforms. They reported that this environment of reform had gone on too long which had resulted in an increased level of cynicism. They also expressed a desire to see firm research or evidence demonstrating the positive effects on student learning before committing further time and effort into implementing change. Many perceived their administration as a tool or extension of the employer. This view appeared to be linked to an industrial agreement whereby administrators were on a differing pay scale and conditions to teachers and had increased decision-making responsibilities in return for increased compliance to the employer’s demands.

Two recent policies that were of particular concern to some teachers were Local Merit Selection processes under Local Area Planning guidelines and the Corporate Loyalty policy. Local Merit Selection disturbed rural teachers who saw themselves at a disadvantage to their metropolitan colleagues. Corporate Loyalty was clearly an issue to the teachers in this study. Raised repeatedly by respondents was the anonymity aspect. On numerous occasions respondents would preface a remark by saying “this is anonymous isn’t it” or “there is no way my Principal is going to know that I said this will they?” One teacher rang back later to check that his/her remarks would not “get back” to the Principal. After assurances were given the teacher was probed as to why he/she was so anxious, he/she related a case of a teacher who had been removed from the school after speaking out against the administration. This case had obviously disturbed this teacher and others in the school considerably and he/she reported it had made them extremely nervous about responding to any surveys, research or opinion-related issues. Another teacher in a different school related a similar case where a colleague had his/her pay docked for writing an
editorial in a local newspaper on teachers’ working conditions and stress levels. While relating this incident the respondent was quite candid about what was occurring in the school and appeared to be less threatened than other respondents due to having a permanent teacher status.

Five teachers specifically attended or organised PD related to legal issues for teachers. These teachers attended with a view to increasing their understanding of “where they stood legally” on a range of issues (e.g., Internet use, software licensing, corporate loyalty policies, managing student behaviour and dealing with conflict). Two commented that they may be held “personally” accountable by their employer and that they needed to know specifics of how to “cover” themselves. This perceived threat disturbed them considerably. This lack of trust in the support of the employer was characteristic of teachers across the sample. It also appeared to be more apparent in more experienced teachers.

Culture within the public education system appeared to be exerting significant influence on teachers, which in general was not positive. Teachers made it abundantly clear that they were under considerable stress to respond to change and yet felt that the employer was negligent in supporting the change. Teachers indicated repeatedly that educational reform was being instituted without expert assistance and guidance. Another recurrent theme was that the responsibility of EDWA to fund and provide appropriate PD in order to meet the employer’s demands for change was not being met. The teachers in this study were overtly aware that teaching was a profession and that comes with responsibilities. They also indicated that the perception of teacher professionalism was being gradually whittled down through a process of lack of consultation and self-determination from the employer and this was a grave concern. Teacher morale appeared to be strongly linked with this perception of teacher professionalism. Many of the teachers in this study expressed doubt at how long they would be able to maintain their present levels of professionalism given the increasing demands placed upon their time, energy, resources and their goodwill.
Summary

Teachers in this study were heavily committed to professional development, which was demonstrated by the number of hours (6.94 hours of PD/working week/person) teachers were engaging in professional development. Secondary school teachers reported perceiving themselves primarily as subject-specialist which was endorsed by their personal choices of professional development. Half (50%) of the PD teachers personally selected directly related to their subject-specialisation and the teaching of their specialist area. The other major PD content areas were information technology (39%), Curriculum Framework (outcomes based education) (6%) followed by a variety of other policies (1-2%) such as middle schooling approaches and structures, managing student behaviour, performance management and students at educational risk. Teachers indicated that their main motivation for participating in PD was personal interest or if it was likely to be of interest to their students. Additionally, teachers stated they also desired to increase their knowledge and teaching expertise.

Teachers rated the effectiveness of professional development they personally selected higher than that provided by the employer which they were required to attend. Teachers’ perceptions of effectiveness appeared to directly relate to the level of self-determination or control they had over the choice of PD, and how relevant the PD content was to classroom teaching or other teaching duties.

Technology teachers appeared to have slightly different professional development needs and concerns. These teachers were frequently responsible for designing (or advising in the design), developing and maintaining of schools IT infrastructure. They were also providing considerable PD to their colleagues. The PD information technology teachers required usually related to system design and maintenance and specific software applications. These teachers were also personally incurring significant expense due to providers catering to a predominantly commercial professional development/training market.

Over a quarter (28%) of the sample were in promotional positions such as Heads of Department or Teachers in Charge. A further 30% of teachers were undertaking other
roles/duties in addition to teaching. Their PD focus reflected their additional duties, for example, some were undertaking PD related to pastoral care, legal issues, Curriculum Framework and Student Outcome Statements, and middle schooling structures. Many of the group who were undertaking other roles were also engaging in PD that would provide opportunities for career advancement.

Resourcing of professional development was a contentious issue for teachers in rural situations. These teachers indicated that EDWA needed to re-examine the amount of PD funding to school in relation to distance from the metropolitan area.

Gender did appear to have an influence on teachers’ perceptions of professional development. Inexperienced (0-3 years career stage) and experienced (4-33 years) male teachers were particularly focused on selecting PD that included potential opportunities for career advancement, whereas their female counterparts were more focused on PD related to teaching and students. Although some experienced female teachers also displayed interest in career and promotion, more females expressed disinterest, and in some cases distaste, for promotional aspirations. Some of this latter group indicated that promotional aspirations interfered with the efficient functioning of the school. In discussing school and educational culture, male teachers displayed more cynicism and anger while females were less emotive and frequently attempted to present a balanced perspective. Taking a break in career for maternity leave was also reported to disadvantage female staff, specifically in how they were perceived by superordinates upon their return and yet the negative impact on PD involvement due to the commitment to young families and spouse was reported more frequently by experienced males.

Culture factors were repeatedly discussed by teachers in this study in relation to professional development. Teachers emphasised the importance of professional dialogue and collegial interactions, with PD frequently being selected on this basis. Leadership qualities also came under the spotlight. The level of genuine consultation administrators facilitated, demonstrating a balanced perspective to policy implementation timetables, and personal qualities, such as honesty, care, and trustworthiness were key aspects identified by teachers as important in establishing
positive school cultures. The wider educational culture appeared to be marred by constant and rapid reform. Teacher morale and continuing responsiveness and effectiveness were called into question.

Discussion

Involvement
The level of commitment to professional growth displayed by the teachers in this study was impressive and surprising considering that the literature indicated that the increase in teachers’ work has frequently resulted in them feeling too tired to participate in professional development (Robertson, 1993; Ingvarson & Loughran, 1992; Dinham, 1993a; 1997). Most teachers in this study indicated they had prioritised professional development and were expending considerable time and energy in ongoing learning, both within school hours and out-of-hours some with the express view that the professional development would assist them to cope. This was similar to the commitment noted by American researchers about the teachers in Alberta, where teachers were engaging in extracurricular duties without receiving extra wages due to “highly altruistic” motivations of the teaching force (Webber, 1995). The mean number of hours reported engaged in professional development by the teachers in this study was 300 hours per person per year. This represented a figure significantly above the level of teacher participation reported by others such as Arends (1983) of 97 hours per person per year (Arends, 1983 in Gall, Renchler, Haisley, Baker, & Perez, 1985) and the Progress Report of the Fresno Urban Systemic Initiative (1998-9), with a mean of 90 hours per person per year. Teachers indicated that this was crucial in maintaining their professionalism.

Choice
Choices of professional development reported by teachers emerged as two major categories, first, that which directly related to their subject-specialised teaching and, second, that which related to their position or duties within the school. These choices aligned with the broad categories of teachers’ professional development needs identified by Connor (1991). He indicated teachers’ content choices were new
teaching skills, content knowledge, and/or a change in attitude. Teacher did not specify though that they were undertaking professional development to alter their attitudes. Attitude shifts may have been an aspect of the system provided professional development teachers were required to attend. Teachers viewed "teaching related" professional development as associated mainly with extension and/or refinement of content subject specialised content knowledge and expertise, assessment guidelines, networking with similar-subject colleagues for resources and ideas, and occasionally specific teaching strategies. Professional development related to teachers’ "position" or "additional duties" was a priority for teachers who were undertaking additional duties, as they tended to focus their professional development efforts on the requirements of the additional duties rather than the teaching component. Pastoral care emerged as a focus for most of this group as it appeared to comprise the majority of their additional duties. Those in leadership positions, such as Heads of Department or Teachers in Charge, tended to select professional development that assisted them in their administrative leadership role, such as curriculum improvement strategies, managing student behaviour, and performance management protocols and guidelines. These Heads of Department and Teachers in Charge were finding the pressures entailed in their leadership role to be considerable and perceived a need to access professional development that would assist them to carry out their duties more effectively and efficiently.

**Rationale for Participation**

Teacher interest in the professional development topic or potential interest to students was a significant factor in teachers choosing professional development. Teachers within the secondary situation viewed themselves primarily as subject specialists rather than teachers of a specialist area. This focus on subject areas, faculties or learning area interests and affiliations links with Hargreaves and Fullan’s (1992) discussion on balkanised cultures particularly in the secondary school situation. Teachers’ choice of subject specialised professional development also endorsed Gall and associates’ (1985) findings that teachers undertake professional development in areas in which they are already recognised specialists. While the majority of teachers were selecting professional development in their specialisation some teachers in this study were unusual in that they were able to identify their
personal areas of weakness that required work or their professional development needs, rather than choosing to focus on personal strengths. This was contrary to previous studies (Gall et al., 1985).

It was surprising, considering how poorly teachers viewed in-house professional development, that it was rated as more interesting than first anticipated. It may be conjectured that teachers’ expectations of employer provided professional development was low and hence teachers were pleasantly surprised, or was this due to the employer being able to resource the best presenters? From teachers’ discussion of mandated in-house professional development, it would appear more likely that their low expectations were the reason for their reported higher interest level. This leads into the consideration of why teachers viewed mandated professional development so poorly. Mandated sessions were viewed as “one-size-fits-all” professional development which teachers’ identified as an inherent weakness or lack of effectiveness. The need to design professional development that fits the individual needs of the teachers and the individual school context is recognised in the literature (Garmston, 1991; Goldenberg & Gallimore, 1991; Clark, 1992; Boyd, 1993; Sparkes & Bloomer, 1993; Guskey, 1994; Novak, 1996; Goldberg & Pesko, 2000; Magestro & Stanford-Blair, 2000). Teachers’ negative perception of their employer was also linked to participation. This opinion, once formed (early in their teaching career) did not appear to alter greatly.

An issue that arose in discussions on mandated professional development was teachers’ desire to be self-determining in their choice of professional development. Teachers, in particular the more experienced ones, responded positively to processes in the school that incorporated a measure of self-determination or that included “genuine” staff consultation. To be receptive to mandated professional development teachers needed to have some input into the decision-making processes related to the choice of professional development, and the days activities and this expectation was linked with a need to be “treated as professionals”. This endorsed Stout’s (1996) findings that the majority (70%) of teachers wanted input into their staff development programs. Considerable variation occurred in the extent of teacher input into the selection of professional development across schools. This ranged from none
at all to some input through application processes to school-based professional
development committees. When genuine input was available to staff the result was
an increased level of tolerance of system-demands; conversely, where there was
limited, or no input, responses were more cynical and emotive to the employer’s
demands.

The need to break down the isolation inherent in teaching was clearly a factor in
teachers choosing professional development and participants in this study raised
repeatedly the need to incorporate increased collaborative activity between teachers.
Teachers frequently recognised this need and sought to satisfy it through accessing
professional development that facilitated networking and socialising. These
collaborative forms of professional development endorsed current trends in the
literature which document teachers’ participation in professional development
activities that provided opportunities for increased collegial interaction focused on
teaching and learning strategies and practices (Glattorn, 1987; Goodson, 1992; Yopp,
Guillaume, & Savage, 1993-94; Butler, 1996; Webber & Robertson, 1998; Chandler,
2000; Feiler, Heritage, & Gallimore, 2000; Goldberg & Pesko, 2000; Middleton,
2000; Slattery & Clauss, 2000; Jenkins, 2000).

Another aspect of selecting professional development that had a networking
dimension was that teachers were predominantly practical. They frequently
expressed the desire to obtain tangible benefits from professional development
usually in the form of resources, programs, lesson ideas/suggestions, assessment
items/guides or handouts on specific teaching strategies. In their perception
professional development was effective if these tangible items were supplied, they
had opportunities to obtain resources, and/or were able to establish networks with
colleagues to facilitate the sharing of resources. This endorsed the concept that
networking is valuable in providing teachers with a venue to “articulate their tacit
knowledge of educational practices” (Connolly & Clandinin, 1988, in Webber &
Robertson, 1998) and “builds the capacity of its members to identify and solve their
A key issue that emerged in this study was the need for professional development that addressed the range of skills required by teachers. A large proportion of the sample was performing additional duties or was in promotional positions that required them to undertake administrative tasks. This endorsed Robertson’s (1993) findings that teachers were coping with an increase in workload, paperwork and accountability and did indeed need to acquire “new skills and time” (p.129). Additionally, it appeared that Heads of Departments had been overlooked as key curriculum leaders and had not been targeted for specific professional development, in order to support teachers’ implementation of the Curriculum Improvement Program. This has had a detrimental effect on Heads of Departments’ perception of those managing the implementation process.

**Effectiveness**

Gall and associates posited that the new teachers in the Arend’s study perceived that “participation in many inservice activities leads to improved teacher effectiveness, but an equally plausible interpretation is that a teacher’s high involvement in inservice activities is seen by the principal as a sign of competence” (Arends, 1983, in Gail, Renchler, Haisley, Baker, & Perez, 1985, p.23). While younger teachers in this current study reiterated this view, the prevailing perception was that professional development was crucial for teachers to maintain their level of professionalism and to continue to provide the best education for their students. A curious aspect was that teachers rarely specified they participated in professional development in order to assist their students and yet their open-ended comments revealed the underlying perception that this was implicit as a fundamental rationale for choosing any professional development. This assumption of benefit to students as a rationale underpinning teachers’ choice endorsed previous findings on teachers’ perception of the benefits of professional development (Gall et., 1985; Joyce & Showers, 1995). The exception to this was professional development related to the Tertiary Entrance Examination (TEE), such as moderation meetings or meetings concerning changes to the TEE syllabi. These were specifically cited by teachers as being selected for the purpose of directly benefiting their students and providing them with optimum chances for success in the final examination.
Another underlying assumption about professional development was that it would automatically translate to teachers being more effective, thereby having a positive impact on students' learning (MacGilchrist, 1991; Darling-Hammond, 1998). Curiously this perception held by teachers reflected the “input-output model” described by Goodlad (1994, pp.637-638). It is worrying that the prevalent view of teachers was that engaging in professional development would directly result in increased student performance in a “neatly linear” manner, which incidentally endorsed the basic concept of deficiency in teachers’ skills and knowledge described in the literature as a “deficit model” (Clark, 1992; Goodlad, 1994). This was interesting because when teachers noted their students’ learning was not positively affected as a result of the professional development, some expressed dissatisfaction and frustration with themselves, the professional development, or their students. This phenomenon demonstrated teachers’ lack of understanding of the difficulties inherent in transferring complex skills into the classroom and/or in the components required for professional development to be effective. As outlined by Joyce and Showers (1995) the flaw was frequently not in teachers’ motivation or ability to learn, but rather in the processes incorporated in most of the professional development programs. Dissatisfaction with professional development could also have been symptomatic of the “fragmented, piecemeal” approach currently typified in the Western Australian educational system (Sparks & Hrsh, 1997, p.12).

Some teachers, however, demonstrated remarkable clarity in identifying what was effective in professional development and what was not. Generally, more experienced teachers were able to outline the components required for professional development to be effective in transferring strategies into teachers’ regular repertoire (Joyce & Weil, 1986; Joyce & Showers, 1995). These insights appeared to be formulated from personal experience rather than any formal knowledge of the research on effective professional development.

Participants tended to equate “more” professional development with “more effective” professional development, particularly among those in the less experienced career stages, rather than examining how it was delivered, the effectiveness of the PD and structured for ongoing support and development. This was disturbing when
considering the current stress levels of teachers and the likely effect of adding "more" to an already heavy workload. This perception may also explain the high level of involvement by the teachers in this study in professional development activities.

Content

Subject-specific

One of the key objectives of this study was to ascertain the range of choice of professional development programs available to teachers in secondary schools, both in the metropolitan area and in the rural situations. From the interviews in this current study, discussions of the range of professional development content reported by teachers indicated that there was considerable choice available to teachers within the Western Australian secondary educational situation.

Subject-specific professional development content ranged considerably from professional association organised workshops and conferences to expert speakers on a range of topics. Teachers frequently reported the need to maintain up-to-date in their particular subject expertise, which endorsed Gall’s (1985) findings that teachers tended to select professional development in areas of established high expertise. They also indicated the need to remain in contact with colleagues in their subject specialisation and much of the professional development chosen had a networking component.

Teachers reported having a range of activities available to them related to the mechanical functioning of the school, such as through committees and meetings. However, these forms of professional development described by the teachers provided limited opportunities for academic and cognitive dialogue thus doing little to expand their professional conceptual understanding.

What was noticeably absent from the range of professional development programs reported by teachers in this study as available to them within the Western Australian educational system, was practical, pedagogical, skills-based professional development. Teachers identified this as a deficiency in the choice available to them.
and a concern, as some were reporting a need to further develop their range of teaching repertoire due to the implementation of outcomes-based education, and yet professional expertise and practical professional development was noticeably limited. Individual teachers were seeking skills-based professional development on strategies such as cooperative learning, problem-based learning and critical and inductive thinking strategies. However, locating providers who were sufficiently expert, credible and practical proved to be particularly difficult. Some respondents spoke of their school’s unsatisfactory experiences with costly “inspirational” guest speakers who had provided little more than motivational rhetoric in the guise of providing practical professional development on specific teaching strategies (Brandt et al., 1994, p.5). While some participants in this study enthused about these speakers and evaluated them using what Brandt (1994) described as a “happiness quotient” some perceived these guest speakers (and their promoters) as opportunistic exploiters of teachers and schools particularly at a time when the deficiency in practical skills-based professional development was negatively affecting the implementation of the Curriculum Framework.

**Information Technology**

Information technology (IT) emerged as a key professional development content choice in this study with IT skill increasingly associated with teachers’ capacity to effectively perform their teaching duties. Surprisingly, IT professional development had taken precedence over the state-wide Curriculum Improvement Program (CIP) with more teachers engaging in IT professional development than CIP professional development. This may have been due to teachers’ perceptions that the CIP was being amply covered in mandated professional development days, whereas IT was not as comprehensively provided. Some teachers reported having low skill levels in IT and were actively seeking professional development in order to remedy their deficiency even though they frequently indicated that IT did not overly interest them.

Teachers in this study reported exploring IT, but as Yildirim (2000) suggested, they were using “technology in traditional ways rather than as a tool to solve problems or improve students’ critical thinking” (p.482). The IT usage reported in this study was
predominantly at the “information literacy” stage which endorsed Means’ (2000, p.194) observations that “examples of technology-enhanced, constructivist-orientated learning activities are prominent in the education literature, [however] they do not represent mainstream educational practice in the United States today” (Digital Rhetorics, 1997, in Lankshear, Snyder, & Green, 2000). There was no evidence of true integration of technology or as Franklin (1990) termed it “situated technology”. This was probably because teachers, themselves, have not reached the stage of perceiving technology in this manner or thinking in this way.

Information technology specialists contrasted with the general teacher in their level of usage, expertise and way of thinking about technology. They had moved from an “initial adopters” (Lankshear, Snyder, & Green, 2000) mindset to technology as a way of thinking and doing within a particular social setting. This group, tended to be consumed by the administrative aspects and responsibilities inherent in their positions. These IT specialists had assumed an extensive leadership role and were enthusiastic and committed to carrying out their responsibilities. It was unfortunate that these professional staff members frequently felt that they were being exploited by the educational administration, either within their school or by the educational hierarchy. Findings from this study indicate traditional promotional structures and positions needs to be re-examined, particularly in relation to the amount of responsibility, supervision and administration that is required of these IT system administrators/coordinators.

This researcher observed that the literature pertaining to IT in schools focussed on teachers’ use of IT in relation to their teaching. The teacher’s role as a school’s network administrator or coordinator of IT was not identified or discussed in the literature, which contrasted with the findings of this study, where IT teachers were reporting this specialised expertise as a crucial aspect of their duties and hence resulting in specific professional development needs. This raised the question of whether these IT administration roles exist for teachers in overseas schools or if these functions were assumed by other support mechanisms or personnel, rather than relying on teachers to shoulder additional responsibilities to their teaching.
Curriculum Framework

Teachers' reactions to the Curriculum Framework implementation in this study demonstrated characteristics described in Hall & Loucks' Concerns-Based Adoption Model (Hall & Loucks, 1978; National Academy of Sciences, 2002). Teachers were initially angry and distressed at the magnitude of the changes required. As interviews progressed over time, teachers indicated they needed to have more information about the changes and how this was likely to affect them in the classroom. They then were concerned about how viable and practical this innovation was for teachers. In the later interviews teachers demonstrated a measure of resignation or, in some cases, enthusiasm with the Curriculum Framework and were anxious to get more information and guidance that would assist them to fully implement it. This continuum of reactions demonstrated by teachers in this study endorsed Hall & Loucks' model (1978; National Academy of Sciences, 2002).

Other Content

Professional development that had a pastoral care emphasis was increasingly in demand especially by those who were undertaking additional roles other than teaching. Additionally, other professional development such as interviewing techniques, panel training and writing a Curriculum Vitae were emerging as popular reflecting teachers' personal concerns related to their positions in the school and desire for career advancement (Hall & Loucks, 1979; Loucks-Horsley, 1996, in National Academy of Sciences, 2002).

Format

The most disturbing finding described by respondents was that the majority of professional development consisted of "one-shot workshops" or information delivery sessions utilising a lecture format with occasional group discussions. This finding contrasted with international trends outlined in the literature that demonstrate increased awareness of providing or accessing professional development that is appropriate, comprehensive and has long-term processes and structures that promote increased learning of students (Garmston, 1991; Goldenberg & Gallimore, 1991; MacGilchrist, 1991; Boyd, 1993; Sparkes & Bloomer, 1993; Brandt, Dillon-Peterson, Joyce, Calhoun, Wood, Guskey, Fullan, & Schmuck, 1994; Darling-
Hammond, 1998). Additionally, there did not appear to be any employer-initiated systematic approach to setting up effective professional development structures or documenting the effectiveness of these by tracking the impact on student performance as described by Guskey and Sparks (1991) model of Evaluation of Effective Professional Development.

The majority of professional development activities reported in this study did not appear to be based on Social Cognitive or Adult Learning theory, rather, the programs appeared to be structured on an outdated “deficit model” that promoted the notion that teachers “needed fixing” or were falling short in their professional capacities and this needed to be rectified (Joyce & Calhoun, in Brandt et al., 1994, p.4; Clarke & Hollingsworth, 1994; Goodlad, 1994). Even courses that teachers accessed in order to increase their teaching repertoire were not structured to effectively transfer skill into regular use in the classroom. None incorporated a demonstration of the skill, provided time or facilities for practice of the skill in a “psychologically safe” workshop setting and/or formulated ongoing support through peer-coaching or experts assisting in the workplace as endorsed in the work of Joyce, Showers and their associates (Joyce & Showers, 1995; Showers, 1995; Showers & Joyce, 1996). An irony that amused a number of more experienced teachers, was the trend in schools to employ “in-vogue” guest speakers to promote cooperative learning, by lecturing to staff rather than demonstrating the skills or engaging the teachers with the various strategies. Curiously, these speakers were acclaimed by some as “inspirational”, however, the more-experienced teachers identified the paradox of “lecturing” about cooperative learning strategies rather than “practising what they preached” by incorporating an interactive, constructivist professional development approach as promoted by Garmston (1995, p.70; 1991) in his work on appropriate presentation skills.

Only the faculty-based after-hours sessions and the action learning projects included some components of effective professional development. The collegial support mechanisms in these faculty-based after-hours sessions and action learning projects were perceived by teachers in this study as the component that raised the effectiveness of the professional development. However, collegiality was adversely
affected in some of the projects due to colleagues being situated in different schools or even across districts. While these professional development programs were indicated by the teachers to be more effective than other forms, none of them included expert demonstrations of skill in models of teaching or complex instructional strategies, and peer coaching/support within the school as outlined as highly effective processes in skill development in the extensive research and practice of Joyce, Showers and their associates (Joyce & Showers, 1982; 1995; Showers, 1982; Baker & Showers, 1984; Showers, Joyce, & Bennett, 1987; Joyce, Murphy, Showers, & Murphy, 1989; Showers, 1995; Showers & Joyce, 1996; Joyce, Weil, & Calhoun, 2000). It became apparent that in these projects teachers frequently felt that they were simply “pooling their own ignorance” due to the lack of expert help available to them to establish best practice.

Faculty-based professional development that was undertaken as part of an EDWA trial was reported by teachers as a particularly seductive form of professional development, in that most participants had found it difficult to break off from a task and reported continuing until completion. There was almost an inbuilt form of accountability attached to these professional development activities due to the collegial nature of the format. Teachers expressed being unwilling to let colleagues down by not turning up to meetings, coming unprepared or refusing to participate or leaving early. Surprisingly, little overt resentment of the considerable hours entailed occurred, as it was viewed as particularly productive, effective and had direct bearing on the day-to-day task of teaching. They indicated that it assisted them in understanding and coming to terms with the changing nature of teaching, provided time for them to develop materials that they needed, and enabled them to commence the implementation of the curriculum changes. Teachers appreciated this rare opportunity to work collaboratively together and engage in professional dialogue.

**Gender Factors**

In this current study, similarities in teachers’ attitudes and perceptions related to professional development did appear to be gender related or associated. Male teachers within the sample were generally less positive about professional development than females. In contrast to Robertson’s (1992) description of female
teachers’ lack of involvement in school related professional development activities, this current study found the female teachers to be heavily involved in professional development, expressing interest and professional commitment as the rationale for their participation. Robertson (1992, pp.57-58) proposed that females continued to “bear disproportionate responsibility for home and childcare” which may result in a lack of participation in professional development activities and yet curiously, in this current study, it was males in the 30-45 age group who more frequently mentioned concerns related to childcare and the demands of family commitments. Some of this group appeared to be juggling young families, needs of working partners and experienced difficulty in participating in out-of-hours professional development.

Males tended to be more openly interested in career advancement activities and overtly selected professional development that would be a promotional advantage unlike their female counterparts who tended to be more singularly focused on teaching, students and school functioning. This was intriguing as the sample comprised more female Heads of Department and Teachers in Charge, although this demographic was not representative of secondary teachers across the state, where there are more males in substantive promotional positions (Education Department of Western Australia, 2000a).

A perception existed amongst some female teachers that they had received inequitable treatment from superiors subsequent to returning from maternity leave endorsing Dinham’s (1993a, p.11) findings that some female teachers experienced stress due to conflict with male superiors. They indicated that the break in service had placed them at a disadvantage and had necessitated considerable professional development in order to “catch up” with changes that had occurred during their leave.

Overall, males generally were more definite and emphatic regarding their perceptions. Female teachers appeared to be either more accepting or attempted to present a more balanced perspective. Although women tended to display less promotional drive, it may have been interesting to know whether this was due to the press of family commitments, as proposed by Robertson, or whether they generally
were less personally driven with promotion in view. No difference was found in the level of professional commitment demonstrated in either gender, although the few teachers displayed Huberman's "disenchantment" and "stocktaking" characteristics were male.

**Culture Factors**

One objective in this current study was to explore how the culture of the school within which teachers worked may have affected teachers' professional development activities. Only insights that related to professional development have been included in this discussion, however, further insights into teachers' perceptions of school culture can be found in Appendix K. Teachers in this study were remarkably frank and open in their discussion with the researcher and tended to discuss their work environment which provided information with which to formulate a picture of the school's culture from the respondent's perspective. Teachers were not directly asked about their perceptions of the culture within their schools; yet many of the questions had an aspect that required the teacher to contextualise their answer.

Although "dealing with change" has become rather clichéd it was found in this study that teachers' ability to cope with numerous and rapid changes was significant, with a resultant demand for professional development that would assist them to cope with the many changes they faced. Change itself did not appear to be contentious to teachers as most acknowledged that this was the core business of education endorsing Dinham and Scott's view that education should not be "immune" or "protected" from change (Dinham & Scott, 1997, p.1; Spencer & Webber, 2000). What proved problematic to teachers were the number of policy changes that had occurred over the period of their careers, the extent of the required changes and the increased pace of the changes. This phenomenon is not isolated to Western Australian teachers as it was documented by Spencer and Webber (2000) in their article on education reform in Alberta, Canada. This was of particular concern to those in the more experienced career stages as these teachers were frequently carrying out additional duties aside from their usual teaching responsibilities. Additionally, the issue raised by Dinham (1997, p.1) that previous changes that had been "advocated and even mandated" and had been "reversed later" had created a
loss of confidence within the educational system, and had certainly appeared to be the case in this study. There was speculation by teachers as to how long they would be able to maintain the rate of change before either burning out, resigning or, as a survival mechanism, disengaging from teaching endorsing Guskey and Sparks' (1991) remarks concerning the maintenance of the "status quo" as a coping mechanism.

School culture in this study appeared to be an influencing factor in teachers' level of career satisfaction and their level of engagement with professional development programs. Teachers in schools that had a positive, collegial tone tended to be more positive, energetic and involved in professional development activities irrespective of their outside commitments. As indicated in Hargreaves and Fullan's (1992, p.1) work, school culture was heavily influenced by the leaders in the school, namely principals and deputy principals. Results from this current study support Hargreaves and Fullan's (1992, p.1) findings that these administrators, and to a lesser degree the Heads of Department, set the professional tone of the school. Teachers were more accepting and tended to present a more objective perspective when discussing the school's processes if they felt there was genuine consultation with teaching staff in relation to decision-making about professional development. This endorsed Stout's (1998) finding that the majority of teachers want input into professional development decisions.

Teachers' descriptions of their school cultures indicated that most appeared to exhibit either balkanised or individualised cultures (Hargreaves & Fullan, 1992; Fullan, 1998). In schools where balkanised cultures were described, competition between faculties was reported as intense and not particularly constructive. Curiously, some who were working in individualistic school cultures reported seeking professional development for networking purposes as an antidote to the profound sense of isolation experienced by teachers in this study.

A detrimental effect of merit selection that emerged from teachers' responses was the perception that being successful was more to do with how well a teacher could write an application (or whom he/she employed to write an application) than actually how
well he or she could perform the job endorsing Robertson’s findings of teachers having to acquire new and different skills due to the devolved decision-making structures (Robertson, 1993, p.129). Teachers expressed concerns related to alleged nepotism displayed by Principals in selecting staff. These reports reflected Robertson’s (1993, p.129) description of the “new system of power” that exists in schools and endorsed Robertson and Soucek’s (1991, in Robertson, 1993) findings where teachers in their study cited issues of “knowledge and secrecy, politicking, bargaining and the advancement of personal careers” in self-managed schools. It seems that although the literature reported this some time ago the issues have not been resolved.

The findings of this study indicate that teachers in government secondary schools have considerable choice in professional development. Unfortunately, the choice is severely limited in the area of specific instructional strategies professional development, which is required to support outcomes-focused changes sweeping through the educational system at present. While the teachers reported being committed to and engaging in many hours of professional development, the professional development processes were not designed to support ongoing, contextualised and reflective professional growth for teachers and there is a need for a more effective systematic approach to professional development.
CHAPTER 8
RESULTS
PROFESSIONAL DEVELOPMENT - INFLUENCE OF CAREER STAGE

Information was collected to establish whether teachers’ career stage/phase influenced their choice, perceptions, and level of involvement in professional development. Additionally, their motivation to participate in professional development activities was sought. Data from the interviews were examined initially to ascertain if any trends were emerging related to experience levels. Following an exhaustive examination of the literature on the career stages of teachers the work of Huberman (1992) was selected as the most appropriate framework for this study.

This chapter of results examines the choices of PD made by teachers according to the following career stages of teachers:

Inexperienced teachers

- (from beginning teaching to the 3rd year)

Experienced teachers

- (4-6 years of experience)
- (7-18 years of experience)
- (19-33 years of experience)

Where possible similar themes were tracked across the various career stages in order to provide a frame of reference to compare and contrast perspective and level of activity of teachers across the various stages. The themes included: philosophy related to teaching and PD; Curriculum Framework; managing student behaviour; information technology PD; performance management; perceptions of administration; promotion and advancement; managing change; perceptions of school culture.
<table>
<thead>
<tr>
<th>Career Stages</th>
<th>Years of experience</th>
<th>Number of resp. in the sample</th>
<th>Percentage of total sample (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt; 1</td>
<td>4</td>
<td>8</td>
<td></td>
</tr>
<tr>
<td>2-3</td>
<td>5</td>
<td>10</td>
<td></td>
</tr>
<tr>
<td>4-6</td>
<td>5</td>
<td>10</td>
<td></td>
</tr>
<tr>
<td>7-18</td>
<td>22</td>
<td>44</td>
<td></td>
</tr>
<tr>
<td>19-29</td>
<td>11</td>
<td>22</td>
<td></td>
</tr>
<tr>
<td>30 onwards</td>
<td>3</td>
<td>6</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>50</td>
<td>100%</td>
<td></td>
</tr>
</tbody>
</table>

Table 8.1: Sample demographics related to Huberman’s career stages.

Table 8.1 displays the actual number and percentage of respondents in this study in each of Huberman’s career stages.

<table>
<thead>
<tr>
<th>Years of experience</th>
<th>n of resp. in the sample</th>
<th>Revised Career Stages (%) of total sample</th>
</tr>
</thead>
<tbody>
<tr>
<td>0-3</td>
<td>9</td>
<td>18%</td>
</tr>
<tr>
<td>4-6</td>
<td>5</td>
<td>10%</td>
</tr>
<tr>
<td>7-18</td>
<td>22</td>
<td>44%</td>
</tr>
<tr>
<td>19+</td>
<td>14</td>
<td>28%</td>
</tr>
<tr>
<td>Total</td>
<td>50</td>
<td>100%</td>
</tr>
</tbody>
</table>

Table 8.2: The revised categories of years of experience.

Table 8.2 displays the revised career stages. The initial two, and final two categories of career stages were collapsed into one in order to maintain sufficient numbers of respondents in each cell. Over a quarter (28%) of the sample were within the first six years of teaching. The majority of the sample (72%) were more experienced teachers, with just under half (44%) of the sample having 7-18 years of experience and 28% having accrued 19 or more years of teaching.

Table 8.3 displays the number and percentage of teachers in particular career stages in relation to the teaching situation (rural/metropolitan). Most (89%) of the inexperienced teachers were situated in the rural situation. This trend of inexperienced teachers being in the country was similar in the 4-6 years of
experience group with 80% of this group being situated in the rural areas. This trend altered in the 7-18 years of experience group with the majority (68%) being situated in the metropolitan area and continued in the most experienced group (19 and onwards years of experience), with most (79%) of the teachers in this group being situated in the metropolitan area.

<table>
<thead>
<tr>
<th>Career Stage</th>
<th>Years of Exp</th>
<th>Teachers in Metro situation</th>
<th>P (%) of career stage - metro area</th>
<th>P (%) of total sample</th>
<th>Teachers in Rural situation</th>
<th>P (%) of career stage - rural area</th>
<th>P (%) of total sample</th>
</tr>
</thead>
<tbody>
<tr>
<td>0-3</td>
<td>1</td>
<td>11%</td>
<td>2%</td>
<td>8</td>
<td>89%</td>
<td>16%</td>
<td></td>
</tr>
<tr>
<td>4-6</td>
<td>1</td>
<td>20%</td>
<td>2%</td>
<td>4</td>
<td>80%</td>
<td>8%</td>
<td></td>
</tr>
<tr>
<td>7-18</td>
<td>15</td>
<td>68%</td>
<td>30%</td>
<td>7</td>
<td>32%</td>
<td>14%</td>
<td></td>
</tr>
<tr>
<td>19-</td>
<td>11</td>
<td>79%</td>
<td>22%</td>
<td>3</td>
<td>21%</td>
<td>6%</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>28</td>
<td>56%</td>
<td>22%</td>
<td></td>
<td>44%</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 8.3: Career stage and teaching situation (rural/metro).

Table 8.44 displays the total number and the mean of hours engaged in various PD content by respondents in the various career stages. Hours are expressed as a total number or as a mean per person per career stage. Inexperienced teachers' (0-3 years of experience career stage) primary focus was on establishing their classroom expertise and practices. Their PD involvement reflected this focus with teachers engaging mainly in subject-specialised/teaching-related PD content ($M = 83$ hours/person) and Curriculum Framework PD content ($M = 26$ hours/per person). Slightly more experienced teachers (4-6 years of experience) were also exploring subject-specialised/teaching-related PD content ($M = 242$ hours/person) but were also engaging in technology PD content ($M = 137$ hours/per person). Experienced teachers (7-18 years of experience career stage) were still prioritising their subject specialisation PD ($M = 280$ hours/person) but were also becoming more committed to increasing their technology expertise ($M = 196$ hours/person). The most experienced teachers in this study (19–33 years experience career stage) were prioritising IT ($M = 188$ hours/person) and were still focusing on their subject-specialised knowledge ($M = 114$ hours/person).
In Table 8.4, the PD content columns are ordered according to the total number of hours teachers reported engaged in each content area. That is, according to teachers' level of participation.

Mean hours are expressed on a per person basis—using the total number of people within each career stage.

Table 8.4: Total and mean hours engaged in various PD content across the career stages

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
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<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>M* Students at Educational Risk</td>
<td>14</td>
<td>4</td>
<td>3</td>
<td>1</td>
<td>8</td>
<td>9</td>
<td>10</td>
<td>11</td>
<td>12</td>
<td>13</td>
</tr>
<tr>
<td>M* Performance Management</td>
<td>4</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
<td>8</td>
<td>9</td>
<td>10</td>
</tr>
<tr>
<td>M* Managing Student Behaviour</td>
<td>5</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
<td>8</td>
<td>9</td>
</tr>
<tr>
<td>M* Middle Schooling</td>
<td>12</td>
<td>11</td>
<td>10</td>
<td>9</td>
<td>8</td>
<td>7</td>
<td>6</td>
<td>5</td>
<td>4</td>
<td>3</td>
</tr>
<tr>
<td>M* Curriculum Framework</td>
<td>26</td>
<td>25</td>
<td>24</td>
<td>23</td>
<td>22</td>
<td>21</td>
<td>20</td>
<td>19</td>
<td>18</td>
<td>17</td>
</tr>
<tr>
<td>M* Technology</td>
<td>42</td>
<td>41</td>
<td>40</td>
<td>39</td>
<td>38</td>
<td>37</td>
<td>36</td>
<td>35</td>
<td>34</td>
<td>33</td>
</tr>
<tr>
<td>Subject-specific teaching-related PD</td>
<td>74</td>
<td>75</td>
<td>76</td>
<td>77</td>
<td>78</td>
<td>79</td>
<td>80</td>
<td>81</td>
<td>82</td>
<td>83</td>
</tr>
<tr>
<td>Years of Experience (Years)</td>
<td>7 - 18</td>
<td>18 - 25</td>
<td>25 - 32</td>
<td>32 - 39</td>
<td>39 - 46</td>
<td>46 - 53</td>
<td>53 - 60</td>
<td>60 - 67</td>
<td>67 - 74</td>
<td>74 - 81</td>
</tr>
<tr>
<td>Total</td>
<td>114</td>
<td>119</td>
<td>124</td>
<td>129</td>
<td>134</td>
<td>139</td>
<td>144</td>
<td>149</td>
<td>154</td>
<td>159</td>
</tr>
</tbody>
</table>

Legend:
- M* = Engagement data for teachers with more than five years of experience.
Inexperienced Teachers (0-3 years)

Huberman’s work on career stages outlined an initial stage from the commencement of teaching to the end of the first year. In this study there were insufficient numbers of respondents in this category, hence these beginning teachers’ responses were included into the next career stage of 2-3 years of experience. Huberman refers to these two initial categories as inexperienced teachers. Additionally, Huberman research on career stages identified a career stage including 19-29 and another from 30 years and onwards. Similarly, these two career stages were combined due to lower numbers in the final career stage group.

Induction

Nearly all (apart from one) of the first-year respondents had been involved in induction PD and had found limited benefits ...

   it wasn’t organised very well and everyone was really unsure what they were doing, ... I felt really lost and I’m thinking, Oh my god, someone help me please.

New teachers’ perceptions rated the effectiveness directly to how well the PD had prepared them for the routine day-to-day activities in the school ...

   things that were helpful like when I went straight to collect my forms I knew exactly what to do with them, when to take them, what role to take, what to tell them about uniform policy, about dress policy, behaviour policy, absenteeism, things like that.

If the PD had provided them with clear guidelines of administration’s expectations, their duties and responsibilities and they had implemented the procedures and found these guidelines to work well they rated the PD highly, however, this was a rare occurrence. Disillusionment with the realities of the school processes and the lack of support in some cases had a negative effect on these beginning teachers’ perception of their administrators.
Managing Student Behaviour
The new teachers were seeking further PD on basic management skills and half of this group reported being dissatisfied with the Managing Student Behaviour (MSB) systems set up in their school. Teachers in the 2-3 years of experience stage were also concerned with MSB issues. Most indicated that this included students with special needs such as behavioural problems, learning difficulties or Aboriginal students. They frequently linked students at educational risk with those who were behavioural problems. They indicated they were still establishing their teaching skills, were aware of their lack of experience and required PD to develop expertise in dealing with difficult students or students with specific learning difficulties.

Specific Teaching Strategies
The beginning teachers stated that they felt they needed more PD on how to teach and were actively seeking PD on specific teaching strategies …

more PD on alternative methods of teaching within my subject specific area. Similar to what we did in Strategies at university, where we did models, different models, and actually created lessons looking at the model and then swapping them. If we could do something like that up here with different schools in the district that are teaching similar grade levels, swapping ideas.

One teacher reported that these student-centred teaching strategies should have been taught in preservice education at university.

Philosophy of Teaching and Professional Development
All of the beginning teachers appeared to have the perception that PD was the means to solve all their teaching problems. All had been placed into challenging positions outside their teaching expertise and stated they felt “let down by [their] admin” in terms of support, reliable information and assistance when placed outside of their subject expertise. All of the slightly more experienced teachers appeared to be developing definite views regarding PD and a philosophy related to teaching. They demonstrated a clearer understanding of the education system within which they
worked. Male teachers demonstrated an awareness of undertaking PD that was likely to be advantageous to their career aspirations, promotion and/or job security ...

when you’re involved in decision-making processes within the school, certainly helps down the track if you’re looking for promotion that sort of thing. That’s sounds horrible but ... because it helps get stuff for your department and it means that you’re getting information first hand and ... also it gives you a role within the decision-making group.

Teachers in this group did not display an overt awareness of professionalism, rather, they were concerned with issues related to the performance appraisal or performance management processes. They appeared to be more conscious of the need to satisfy the demands of their superordinates than of meeting their own personal expectations of professionalism.

**Information Technology**

The majority of the teachers in this group (80%) were engaged in IT professional development. Those who indicated that this was an area of interest were conversant with technology and were readily utilising IT within their teaching. The group were all interested and involved with IT either by being highly skilled in IT, teaching IT, and/or being involved with the IT committee. Those who were less skilled were readily seeking out PD to address their lack of skill. None in this group appeared to be uncomfortable or hostile to IT.

Some reported a lack of appreciation of their IT expertise and experience by other more senior staff members which resulted in frustration at being dismissed without being given the opportunity to be heard ...

*I found myself as a first year at loggerheads with him... where I knew... what I was talking about, and when your point of view’s not being taken and not being recorded ...it wasn’t acknowledged and even if it was, I don’t believe it would have been acted upon.*

**Performance Management**

Performance management was generally raised by rural teachers who had attained permanency early in their careers through their “country service”. These teachers
were unimpressed overall with the PM process. One indicated that it was difficult to undertake the process at this early stage of his/her career …

*a lot of the things they were talking about weren’t particularly relevant to first-year out teachers, they seemed to be more focussed at people who’d been teaching a while.*

**Administration**

A large proportion of this group had experienced situations where their administration had fallen short of their expectations. This appeared to have resulted in five teachers demonstrating somewhat cynical perspectives regarding administrative and policy implementation processes within their school and Education Department of Western Australia. The pervasive perception of EDWA policy-based PD was that it was designed to service government agendas not necessarily to assist teachers in their teaching situation. Most were quite cynical and distrustful about information coming from the employer …

*a heap of glossy EDWA advertising, [with] a slide show showing happy teachers smiling with lots of little multi-racial kiddies, you know that sort of advertising… thing … we were getting fed this stuff about how it’ll help everyone but it won’t hurt anyone and there’ll be no extra work.*

Teachers were primarily concerned with their own teaching expertise and teaching-related activities rather than system-wide policy-orientated PD … “*I could have been getting ready for school and getting orientated, instead I was stuck … listening to all this rubbish about middle school. I was very annoyed*”.

**Networking**

A frustrating issue reported by this group was the lack of funding to enable inexperienced teachers to network with other teachers in the same subject discipline at WACC meetings (in the metropolitan area). This was because some rural schools would not finance half-day PD sessions. This was perceived by the respondents to be particularly detrimental to themselves as inexperienced teachers, as guidance and exemplars were needed at this early stage of their careers.
Experienced Teachers (4-6 years)

Philosophy of Teaching and Professional Development
All of these teachers demonstrated well-established pedagogical views and were able to elucidate their perspectives. All reported being more interested in teaching-related PD as their major priority … “my needs are for things … that will directly help me as a classroom teacher and help improve my teaching efficiency or teaching strategies”. Half of the teachers in this group reported networking with colleagues as important to their professional growth.

Professionalism and excellence in classroom teaching emerged at this career stage as a high priority and motivating factor for all in this group …

it’s very much for me … a matter of my professionalism, maintaining professionalism and I guess maintaining a professional standard in knowing what’s happening around me and relating it back to how I operate in the classroom.

Most (88%) expressed an interest and concern for their school and students.

Information Technology
Eighty percent of teachers in this group were engaged in Information Technology (IT) professional development. The others indicated that they had technology as the focus for their future professional development. All were comfortable with IT and were enthusiastic regarding investigating IT applicable for use in the classroom. There was some concern with the cost of IT professional development. A teacher who was responsible for equipping his/her department with IT expressed concerns about the time involved in procuring equipment and ascertaining competitive pricing.

Performance Management
A similar thought was expressed to that of the previous group regarding Performance Management, in that the process was not well regarded. Specifically, teachers expressed some cynicism of the performance appraisal system with temporary or permanent status attached as measurement of a teacher’s professional competence …
“it’s not something that I see as particularly vital or working terribly well in schools at the moment, it’s something that we have to do”. One teacher indicated that attaining permanency early had distanced him/her from receiving regular feedback on his/her teaching ...

since I’ve become permanent, I’ve become more aware of myself as a professional in seeking new ideas, more input into my teaching strategies [however] I’m not getting the feedback that a temporary teacher would through the performance appraisal system.

Curriculum Framework
Half of this group were critical of the CF professional development program. They expressed frustration with the lack of information on how to implement the CF and indicated this was impeding progress. The other half of this group were relatively complacent. On the other hand faculty time was identified by most as crucial to implementation of the Curriculum Framework and was perceived to be providing teachers with an opportunity to be more self-determining in matters related to their teaching ... “we got the chance to have an input and have a say as to what we should teach and why we should. It’s good to sit down and discuss that with others that have taught it”.

Administration
As teachers in this career stage were very concerned about their students and the school culture they frequently made judgmental comments related to administrative decisions that appeared, in their perception, to have influenced the school culture or environment. They were all disenchanted with policy-implementation PD ... “those silly Admin briefings that we go to, they’re mandated as well, but we don’t have any say in what happens”. Two teachers attempted to present a balanced attitude to administration-selected PD; nonetheless, these mandated sessions left them feeling unempowered.

On a professional level I can see that somebody has to make a decision somewhere along the line and say, ‘Well this is what we’re doing’. But I don’t feel part of that consultative process ...
... I don’t see any input from me changing anything that’s going to happen in the future, so I guess ... I’ve become cynical enough that I don’t believe that anything that I say anyway is going to change how the Administration implements their Professional Development.

The main criticism these teachers elaborated was the lack of consultation by their administrators in decision-making.

**Promotion and Career Advancement**

Interest in advancement and promotion was expressed by most teachers in this group (4 out of 5 teachers). Some were actively seeking PD that would place them in an advantageous position. Others were conscious of this factor and the importance of building their curriculum vitae. One in this group was particularly concerned with promotion with a view to returning to the metropolitan area. One teacher was continuing further studies in order to increase his/her skill level in the classroom and to add to his/her qualifications.

**Experienced Teachers (7-18 years)**

**Philosophy of Teaching and Professional Development**

This group of teachers were distinctive in their passionate views regarding PD ... “I think it’s [PD] a very good thing and I think we should all do it. I think if you don’t, you fall behind and it shows. If you want to be an effective educator, you have to keep up”.

Two teachers out of the 22 within this career stage initially appeared to be disengaged or complacent regarding PD. Curiously though, as their interview progressed it became clear that they were disengaged from any PD that they perceived to be not directly relevant to their teaching. Most of the other teachers felt similarly, but were more vocal or emphatic in expressing this view.

*I think the most valuable PD has to be linked to what people are doing in the classroom because it’s only relevant to teachers if it’s linked to ... what they’re doing from day to day with their kids.*

The skill and expertise of the PD presenter was particularly important to this group.
PD providers have to be the full bottle ... they have to know what they're talking about. Because it's really easy to lose faith in somebody if you catch on that they're not really sure about what they're saying.

These teachers were damning of presenters who appeared to be unenthusiastic about their topic, had a flawed knowledge of what they were presenting, did not make an effort to develop a rapport with the teachers or were not practising teachers or closely involved in the education situation.

**Information Technology**

This career stage was interesting in the contrast. Half of the teachers in this category being "technofreaks" and the other half being "technophobes". Sixty eight percent of this group had engaged in IT professional development. Well over half (65%) of this involved group were intensely interested in technology due to IT being their subject-specialisation. The other learning area teachers were either very nervous about technology ... "I have basic computer skills ... but the Internet scares me" "I'm a bit of a technophobe ... I feel that I should really try and get my head around the technology plan that EDWA has put together" ... becoming accustomed to IT in their classrooms, or were avidly utilising it in their classes and regular teaching practices. Many in the latter category perceived technology as "the way of the future" and a way to make their teaching more student-centred, fun and relevant for their students and a means to increase motivation levels.

**Performance Management**

Performance Management processes were as poorly viewed by this group of teachers as it was by teachers in the other career stages. Most were at best doubtful of the effectiveness and at worst cynical regarding the rationale for establishing this process within the secondary school system ...

a School Development Plan tool ... getting rid of ... a lot of dead wood ... useless, archaic, out of touch people who should never have been in the system in the first place ... and because they're permanent, they have God's seal of approval to teach forevermore. And I think that's rather
sad because there's a lot of permanents ... who ... should never have
been a teacher in the first place much less ... a permanent officer.

Many perceived it as an accountability tool of EDWA and was something that they
had to "get out of the way" to be able to get back to their "core business" of

Curriculum Framework

Curriculum Improvement Program PD, such as Curriculum Framework and Student
Outcomes Statements, was specifically mentioned by over half of the teachers in this
group. A third of the teachers expressed serious misgivings about this new teaching
legislation ... "We need PD on Student Outcome Statements ... How to incorporate
them into your course, .... The big question at the moment is, how on earth do we
make it work?" The key focus for this group was not in making changes to their
teaching methodology, but rather revolved around in the assessment and reporting
aspects of the Student Outcome Statements.

Similarly to teachers in the previous career stages, the issue of lack of clear
guidelines for implementing the CF and SOS was raised by this group. Likewise, this
group also indicated similar sentiments to their colleagues in previous career stages
related to the usefulness and effectiveness of "faculty time" for staff discussion and
planning.

Employer-Provided Professional Development

Almost half of this group (45%) were very vocal regarding employer provided PD ...

are always such a total waste of time. They are so general. Because it's
often ineffectual. There are better things that I would be doing with my
valuable time. The speakers that often come to address the staff, ... they
aren't really putting in a lot of care and attention ... were appalling
...the way it is delivered is quite frustrating and mind-numbingly boring.

Two teachers reported in-house PD days as being too long and tiring for teachers to
get much out of them or to retain information that was delivered ... "I find whole day
workshops quite exhausting ... you can't answer specific questions, you can't be
subject-specific, you can't cater to individual needs".

Results Professional Development – Influence of Career Stage
A common theme that ran through about a third of this group’s comments was the apparent lack of trust that EDWA or their school administrators demonstrated in teachers’ professional capacity to seek out and attain sound, worthwhile PD …

there should be far more flexibility in valuing, giving teachers their professional discretion, instead of imposing … the one or two days that are planned or mapped out for you, as if you are going to be a recalcitrant child and take this precious time and go wind-surfing or something, that’s the impression that I’m always given. A little like with toddlers … if we don’t organise you to the last minute, you naughty things, you are going to run off. Perhaps we should, we certainly deserve it.

Managing Student Behaviour

Managing student behaviour (MSB) was a concern to some of these teachers. The focus for them was different to those in the other career stages. Teachers were not as concerned about their personal control techniques or ability to maintain discipline within their class; rather, they were focussed on the whole school discipline systems and its perceived effectiveness … “trying to make it a very, very logical, consequence driven system – very transparent - so the kids can see what’s going to happen step by step … there is no malice in the system”.

Those who were year coordinators were generally concerned with the pastoral care aspects of the discipline system in the school. They tended to spend considerable time involved in liaising with colleagues, the community, and neighbouring primary schools on various issues that arose from managing student behaviour. Their views and concerns tended to encompass the wider implications of student misbehaviour, such as damage to property or to others, affects of continual misbehaviour on colleagues, and the community systems available to assist these errant students and their families.
Continuing Education

Interest in completing further qualifications was reported by over a quarter of the teachers in this career stage. Some were undertaking further qualifications to revitalise their interest in teaching, particularly to assist them in moving into other learning areas, a few, mainly IT teachers, anticipated moving out of teaching into private enterprise. Most of the teachers in this career stage were concerned with ensuring they provided their students with increased opportunities to obtain advanced standing with TAFE or industry-based training programs. They perceived this as establishing more relevant and useful curriculum options for non-TEE bound post-compulsory students ... “the focus of the XXX units has changed and the students have changed too. Their expectations, in some cases, their maturity. Their ability to question me, exactly what they’re doing..., ‘and why are we doing this’... ‘tell me how it’s relevant’. The Voc Ed kids, they know where they’re going, well, some of them think they know. So its justification, the kids want more justification”.

Culture

These more experienced teachers were particularly vulnerable during the interview regarding the educational culture within which they worked. They expressed considerable concern at the level of stress and the high risk of “burnout” either personally, exhibited in their colleagues or both ...

one of our problems in the [in a professional association] is that we find that teachers are burnt out, they are just so tired, and many would love to get to the sessions,... but ... to spend their Saturday afternoon doing more professional development is just ridiculous ... The demands are just too heavy.

Almost all (95%) of this group commented on the rapid changes currently occurring within the educational system and the number of policies that are simultaneously being implemented ...

Admin ... had this change ideology. The word ‘change’ was magic ... a lot of it ... is EDWA policies and the abundance of EDWA policies that seem to be coming out all the time and we’re expected to run with those.

Some of the teachers indicated that their personal feelings of stress or dissatisfaction with teaching was due to their rapidly changing work environment or the changing
demands on them and were actively seeking PD that they perceived was going to assist them to cope ... "Oh ... the demands of the job are becoming extraordinary and the only way to cope with it is to develop professionally .... The CF document has just revolutionised the job". Others appeared able to view this climate of change more dispassionately indicating teachers needed time to reflect and consolidate their learning and that currently there is a loss in efficiency in implementation of some of the policies due to the volume of change ...

some of the problem is the fact that the ... professional development scope is so huge between your faculty area, your pastoral care areas, your legal points, ... you’re so busy learning that you don’t always have enough time to try things out and see if they’re actually any good – if they work – if it’s effective and then to have time to incorporate it into your teaching practice. You’re so busy going on to learn something new that you’re not necessarily incorporating some of the good stuff ... where it should be.

Although teachers were reporting considerable stress at the level of change they were experiencing, they all appeared to be particularly involved in school committees and other decision-making processes within their schools. The primary rationale for their participation was in order to have greater input, some measure of control or self-determination over the decisions that were likely to directly affect themselves and their colleagues and/or to increase the monitoring of administrators’ actions and decisions.

Although many of the teachers within this experience range were prepared to express their personal views about educational trends and development, there were frequent references made to the confidential nature of the interviews in this study. Most of these concerned teachers reported that “corporate loyalty” issues were a “serious concern” to them. One teacher reported that her professional association “members found it of concern that this corporate loyalty policy had arisen and yet none of us had a copy of it. And if we fall foul of it, it docks our pay, so it has a huge impact”. So many requests for information related to this controversial issue had been
received, that the committee of the professional association had sought to obtain a legal representative to present a session at one of the conferences.

**Networking**

Similar to the teachers in the previous career stage, networking that provided the opportunity for professional challenging dialogue was very important to this group of teachers and was reported to overcome feelings of isolation. "I just think teachers are marvellous you know! .I don’t know what other profession you have these sorts of conversations”, “find out what they’re doing in their schools ... and so you liaise with everybody and you come back with lots of ideas and possible solutions to your own problems”.

The discontinuing of the Schools and Teacher Register (colloquially referred to as the “Stud book”), previously produced annually by EDWA, was identified as an obstacle to ongoing professional dialogue with colleagues. One teacher indicated that the loss of this register had created real problems in locating colleagues with particular expertise to assist in problem-solving on specific issues … “The problem is if a person leaves this particular school, - and I lose contact with him, I’ve got no idea of how to get in touch with him again – so I lose that particular part of the network because we’ve lost the stud book”.

**Promotion and Career Advancement**

Over 40% of these teachers reported having promotional aspirations. Most of this group reported their motivation to seek promotion due to their concerns with the trends in secondary education and their desire to have a positive influence on the school environment.

**Experienced Teachers (19-33 years)**

**Philosophy of Teaching and Professional Development**

Teachers in this career stage were characterised by their intense, genuine concern and interest in students’ learning and wellbeing. Many at this career stage were seeking
out PD that was specifically aimed at catering for the individual needs of their students ...

"...teaching is such a wonderful opportunity with young people.... it’s a real privilege to teach people and therefore it needs to be done well, I love teaching. Teaching has been my life... I enjoy working with the kids", "to turn the key of the car in the morning to go to work, there’s got to be a reason, you see, and ... it can’t be financial if you’re teaching for God’s sake, I mean you don’t get very much, but you do need the zest for life and to take that into the school with you and if you don’t do that, that is a crime, ... because you haven’t prepared yourself well enough and so we need to get to a position with professional development ... so that we can perhaps encourage people not to be pessimistic... they have got to be enthused about what they do and to cherish the opportunity they’ve got with young people.

There were only two teachers who were disengaged from professional development in this career stage. Surprisingly, almost half of the teachers at this career stage expressed concern with undertaking out-of-hours PD due to commitments with young families ... "if you’ve got a young family or you just bought a new house and you want to get the garden fixed up or something, ... I mean ... it’s just becoming almost XXX overwhelming".

Teachers in this group had distinct insightful philosophies on how effective PD should be structured and managed. For example, one teacher felt that PD should be included in the regular timetable of schools ... "to try and do stuff piecemeal out of school [hours] and then hope that people will be genuine and interested enough to be able to come,... I don’t think it’s a very effective way". Another teacher iterated that PD should not be just one-off sessions ... "if you are trying to implement anything significantly different in a training program just having a one-off session – no matter how good it is – is fairly ineffective".

Others expanded on what they believed would be more effective approaches ...

it is more effective to have a small team of sort of catalytic people who are there to try and encourage and illustrate change to be available in
that context where the changes are being introduced over a period of
time ... to be a resource to respond to problems that may arise.

Some reflected on the moral issue of spending considerable sums of money on PD
that was largely ineffective …

quite large sums of money paid to venues and so called experts talking
about things in [a] … universal way that makes it really significantly
irrelevant to any one particular background workplace environment is
not the way to go.

Again, similar to teachers in the previous career stages, the importance of
presentation skills, and having sufficient faculty time was emphasised by the teachers
in this career stage.

**Information Technology**

Similar to the previous career stage many (80%) of the teachers in this career stage
were engaging in technology PD, and yet many were not comfortable with
technology … “I think I need to drag myself into the twentieth century in regard to
computers”. Frequently, though these teachers acknowledged that this was a routine
requirement for teachers today and they needed to up-skill in order to survive … “in
terms of being able to produce good quality worksheets, cover sheets, things with
tables and all that sort of thing for students to use”. Two teachers were very
uncomfortable with IT and stated they had a low skill level. The PD they had
undertaken had done little to assist skill acquisition …

She’s trying to show us how it fits on the big screen. It's like some expert
trying to teach you how da Vinci painted the Mona Lisa and when you
get back to your workplace they give you a 6” brush, 10 litres of mission
brown and tell you to reproduce it on the pergola out the back there, at
the same time you’re trying to manage the end of year barbecue and
fundraiser for the local football team. It just won’t happen.

Their dissatisfaction with IT was largely focused on the lack of resources in
hardware, funds available for PD and in staff available to assist in professional
development. They indicated that if EDWA was prioritising technology funding and
resourcing should have occurred first.
Discomfort did not automatically relate to teacher-age or years of experience. One of the older, most experienced teachers was readily adopting IT into the classroom and actively accessing technology to up-date his/her teaching practices ...

I do ... a reasonable amount, of my teaching ... directly from the computer on to a large screen, and one of the reasons I did it is because the rooms we’ve got are lousy for overhead projectors and the kids always complain they can’t see the overhead projections very well, so I went to the computer and got pretty big images.

He/she reported that this required considerable work in reviewing his/her teaching materials and resources but he/she was enthusiastic and motivated to expend the effort if it was going to benefit the students.

**Managing Student Behaviour**

Concern for problem students or students at educational risk prompted a quarter of these teachers to seek professional development. “Basic literacy and numeracy skills” were a real issue for a couple of teachers. Quite a number of this experience range were teaching in low socio-economic schools or in poorer rural areas and reported concern for their students who were disadvantaged both academically and socially. This brought managing student behaviour into a slightly different focus for these teachers ... “One of the difficult areas ... the societal problems creeping into the school and into the classroom are also making life extremely difficult for teachers”. Undertaking PD for MSB problems and reviewing school processes for dealing with difficult students were not the solutions, rather many indicated that there needed to be or a societal or holistic approach ...

At the same time you have other external factors that impact on learning. For example, the kid’s diet. Gets up to go to school very early in the morning, kids are having breakfast, Coke Cola, lollies, sugary stuff and it is no wonder their concentration levels in the classroom are extremely poor. So the teacher’s job is getting more and more difficult – that’s the end result.
They indicated something needed to be done and iterated that the present MSB policies were not working but were unsure of how to attack this immense community problem.

**Student-centred Strategies**

Professional development of student-centred teaching strategies drew a range of responses. Some were actively seeking student-centred teaching strategies PD, reporting the need to up-date, refresh existing skills because they felt like "dinosaurs" and needed to up-date their skills in order to keep abreast of the times.

In contrast others reported that they did not see a need to pursue teaching strategies as they were highly experienced and did not require any further skill in this area. Two of this most experienced group expressed dissatisfaction with PD that was promoted as student-centred strategies and yet provided no practical application ...

>I mean that might work for some people, but you can’t really lie down on the beanbags at the back of the lab, while the other kids are walking home with the major classroom assets. I’m sorry but I’m going to lie on my beanbag. Would you guys keep the noise down, please, I can’t hear the Baroque music. Half the waves just aren’t coming through". (Laughter)...It sounds really negative, but the practicality of the whole thing is just nil, it almost makes it a nonsense.

**Curriculum Framework**

Most in this career stage shared similar concerns regarding the lack of guidelines and expert assistance in implementing the Curriculum Framework as the teachers in the earlier career stages. These concerns were intensified for many in this career stage group, as many were in leadership roles and were acutely conscious of assisting and supporting their less experienced colleagues.

Similar to the previous career stage teachers, these teachers also appeared to focus mainly on the assessment aspects of the Student Outcome Statements …

*One thing I won’t do is to spend my time evaluating people ... I prefer them to learn stuff you see. And we can swing back to this constant need for assessment and I think that is really a poor issue.*
Culture
Almost all (98%) in this group were seriously concerned with the impact that increase in workload and related stress was having on school culture and teacher morale. One Head of Department reflected … “teachers now have far less time and less energy available to engage in the same level of PD as they did in the past”. Similarly to the previous career stage, these teachers identified educational reform as a major contributing factor to teacher overload and stress and indicated that the impact of too much and too rapid change has had a deleterious effect on the quality of teaching …

Firstly, the volume of changes that have ultimately reached the classroom level, … have been initiated by the bureaucrats have expanded the teachers’ responsibility and role … is to the detriment to the basic job in the classroom … all these supposedly beneficial changes might in the end prove to be counter effective or counter productive because, far more energy is being invested in implementing change than to focus on quality teaching in the classroom.

Two teachers reflected on their experiences with previous educational “reforms” that had had limited or poor success in the past, and stated that this accounted for their cynicism regarding the success of Curriculum Framework.

A number of teachers in this career stage identified that paradoxically, they were being given the mandate of increased flexibility and control over their teaching (from the CF document) and yet they were in fact becoming increasingly accountable for the implementation of system-wide initiatives that tended to lock teachers into teaching and performing their duties in a required format. This was strongly linked in teachers’ perceptions to their being perceived and treated, by administrators, as “professionals” who could be “trusted” to seek out appropriate professional development.

Promotion and Career Advancement
Promotion and/or advancement were not significant motivating factors for teachers at this stage of their careers. Nearly 60% were already holding positions of
responsibility such as Head of Department (HOD), Teacher in Charge (TIC), Systems Administrator, or other support roles (eg., Year Coordinator etc). Others reported having held an acting HOD position in the past and were not interested in the additional duties that took them out of the classroom. Two teachers stated that the current system of merit selection actually discriminated against older teachers due to the “recency” factor …

Now I’ve been around a long time, I’ve done Year Coordinator positions, ... Acting HOD position, ... Teacher in Charge… I can’t quote some of the things that I’ve done, because it goes back more than five years. But I don’t think that the skills that I learned five to ten years ago are any different to what I could apply now. The fact that I’ve done them is what’s relevant.

Two teachers linked PD with promotion and defined the aspect as a “moral dilemma” … if they go to do some PD in school time … in a way they are neglecting the kids, leaving them with a relief teacher and whatever the consequences of that may be … most of my career I have actually avoided ‘in class time’ PD, particularly if I’ve got TEE kids, but it would appear under the Curriculum Vitae, Resume-driven system that you really should be saying, No, I should go to this PD because then I could put it on my Curriculum Vitae or Resume … At my stage of my career it’s not quite such a moral dilemma because I’m not ambitious.

Two teachers were considering career moves out of teaching. Their rationale for leaving the education system was due to disillusionment with teachers’ conditions and perceived lowering of respect for the professionalism of teachers on the part of the employer and wider community.

**Summary**

From the reports of teachers in the initial career stage it appeared that these respondents were adjusting to teaching and the responsibilities of the profession. As teachers progressed through the career stages, they remained passionate about teaching and also became involved in seeking promotion and having increased
impact in the school functioning and decision-making processes. They also became increasingly involved in professional development, and displayed an overt consciousness of their need for self-determination in teaching and PD choices. Teachers in the more experienced career stages reported considerable frustration and irritation with school administrators’ and education policy-makers’ frequent lack of consultation in decision-making, particularly in matters directly affecting teachers and students. Coupled with the frustration of frequently being excluded from the decision-making processes, experienced teachers reported that there is increasing teacher accountability, requiring them to be more effective in the classroom, more responsive to policy implementation and more professional. A consistent theme iterated by the experienced teachers was that teachers should be striving for increased professionalism. They felt there was also a responsibility on the part of the employer to promote teaching as a “profession” by displaying trust in teachers to make sound decisions on matters related to teaching, professional development and school structure and processes. The majority of teachers in the later career stages indicated that they had encountered and endured numerous reforms over the period of their career. The increased pace and number of changes and multiplicity of the changes left many doubting their capacity to remain responsive, before stress and burnout resulted. Many indicated that the educational culture is already suffering the effects of low morale as a result of government reform agendas.

Discussion

A research focus in this study was the examination of professional development in relation to a teacher’s career stages. Results of the data analysis showed that there did appear to be links between the teachers’ experience levels and their choices of professional development. In general, teachers in this study demonstrated the characteristics described by Berliner in his work on teachers’ stages of development and Huberman’s career stages (Berliner, 1988; Huberman, 1992). There were some differences from those trends outlined in the literature. One aspect of concern was that more experienced teachers were displaying higher levels of stress than their less experienced colleagues. This was unexpected as the research literature generally indicates that these teachers are less stressed due to their higher level of expertise
(Huberman, 1992). Another unexpected finding was the level of enthusiasm and energy being displayed by teachers in the latter stages of career. These older teachers appeared to be re-exploring their teaching techniques and were more receptive to student-centred strategies than their less experienced colleagues. The level of astuteness in managing career aspirations and political awareness in relatively inexperienced teachers in this study was surprising and was generally found in an earlier career stage than that indicated in the literature (Huberman, 1992; Robertson, 1993).

**Inexperienced Teachers (0-3 years)**

As may have been expected, professional development that focused on the induction of new teachers was sought by the graduate teachers in this sample in order to orientate them to their new profession. The novice characteristics described by Berliner (1988) were evident in teachers in this study in that the graduate teachers tended to undertake professional development that served to increase their subject knowledge and their ability to manage students more effectively. They were the least discriminating with respect to professional development and expressed the view that all inadequacies would be overcome with the “right” professional development and “more” of it. Their reports reflected Huberman’s description of “reality shock” and “survival” that new teachers experience in their new work environment (Huberman, 1992).

Slightly more experienced teachers appeared to demonstrate a little more discrimination in their choices of professional development than the newly-graduated teachers. They also held the view that professional development was the simple resolution to all their teaching problems. Huberman’s (1992) description of the initial career phase where beginning teachers attempted to orient themselves to a new workplace and culture was demonstrated with these teachers’ increased participation in committees and desire to increase their instructional effectiveness.

A tension was noted by the researcher between older, more-experienced teachers and newer teachers revealing the perception that credibility was still linked to years of teaching experience, rather than demonstrated expertise. This was reported by newer
teachers who had experienced antagonism and lack of trust in their opinions by more
senior teachers simply because they were new to teaching, regardless of their having
considerable experience in secular fields. The antagonism displayed by more-
experienced teachers in this study aimed at less-experienced teachers who gained
promotional positions through merit selection processes was explained. Technology
was not a severe challenge for any in this group. An increasing awareness of the
context within which they were teaching emerged, described by Berliner as a
characteristic of "advanced beginners".

**Experienced Teachers (4-6 years)**

Teachers in the four to six years of experience career stage in this study, displayed a
clear philosophy of teaching and increased concern with the state of the profession.
This evaluation of existing policy and practice with a view to educational impact
coincided with Huberman’s (1992) views that this group had made a commitment to
teaching and had given up other career choices, although Information Technology
teachers appeared to be an exception. Commitment to the profession could also
account for the overt interest teachers’ at this stage expressed in promotion and
career advancement, accompanied by an increased level of dissatisfaction with the
educational administration. Teachers’ career aspirations were linked with the
reported desire to have a more significant influence on the work situation.
Information technology trends were not causing major concerns to this group.
Teachers reported increased level of flexibility and teaching skill as described by

**Experienced Teachers (7-18 years)**

It is interesting that stress was a significant issue for teachers in this more
experienced career stage probably due to the number of changes that had been
encountered during the span of their teaching careers. A significant lack of interest in
increasing their repertoire of instructional strategies was clearly evident. This was
due to the perception that at this stage in their career they were accomplished
teachers, having high levels of expertise, and therefore did not require further skill
development. This perception may have actually impeded the capacity of these
teachers to implement the Curriculum Improvement Program as this requires teachers to have a considerable teaching repertoire in order to enable all students to demonstrate the learning outcomes required by the Curriculum Framework document. This in turn may have created additional stress for these teachers when they were confronted with a realisation that they were unable to effectively implement the changes required of them.

Teachers in this group exhibited some clarity of self-reflection where the rate of change was identified as an impediment to improvement and explicitly outlined as a rationale for their dissatisfaction and disenchantment. There was some frustration and considerable stress attached to the desire to implement the system-initiated policies but without sufficient time or reflective opportunities in order to experiment with strategies that were alternative to established practice. This was characteristic with Huberman’s description of this career stage and endorsed Steffy and her associates’ emphasis on reflection as “the central, critical” aspect in the cycle of renewal and growth (Steffy, Wolfe, Pasch, & Enz, 2000). This finding paralleled Guskey and Sparks’ reflection that “asking teachers or administrators to change too many things too rapidly ... may result in maintenance of the status quo ... (because they) find it necessary to adopt a coping strategy that seriously distorts the change” (Guskey & Sparks, 1991, p.35). The maintenance of status quo appeared to be more closely aligned with this career stage that with any other.

Collegial responsibility was demonstrated at this stage and the expressed recognition that they needed to be professional exemplars for less experienced colleagues. Discrimination in relation to the effectiveness of professional development was also a characteristic of this stage. Unlike Huberman, who found large cohorts of teachers at this career stage who were disengaged, this was not the case with the majority of teachers in this career stage in this study. Only a few were disengaged and these teachers did demonstrate the characteristics outlined by Huberman (1992).

**Experienced Teachers (19-33 years)**

The level of interest, enthusiasm and energy displayed in this group was unexpected. Considerable understanding of the educational system within which teachers were
working was demonstrated by these teachers. Additionally, a more balanced perspective related to the demands of change and a clearer focus on professional development was evident. A tendency existed to view the education of children in a holistic manner and teachers frequently mentioned ethical issues in relation to policy, practices or beliefs rather than perceiving the issues through a learning area or subject-specialisation filter. These perspectives were not as pronounced in teachers’ reports in earlier career stages of this study. The knowledge and experience exhibited by teachers in this group served to make them very interesting and insightful and it was refreshing to encounter their concern with civic responsibility and the importance of the role of the teacher in shaping the minds of a future generation. They demonstrated many of the characteristics of the “expert” teacher described by Steffy and associates (2000).

Similar to teachers in the previous career stages, considerable concern was expressed by these teachers about the negative impact that too-rapid change was having on both their colleagues and students, and they readily hypothesised about the detrimental effect rapid and multiple change was having on the overall culture of education. These teachers’ comments echoed similar concerns expressed in Webber and his associates’ research examining educational change in Canada and America (Webber, 1995; Spencer & Webber, 2000). Many aspects of Huberman’s (1992) discussion in tracking factors leading to either “serene” or “bitter” disengagement were evident in this group, in that some viewed the changes with disengaged amusement citing the rise and fall of previous educational initiatives and their personal involvement as reasons for their attitude. This appeared to endorse the proposition that teachers who enthusiastically engaged with educational “reforms” may become “disenchanted” when expected results were not achieved; although this group appeared more amused, or perhaps bemused, than disenchanted. They did, however, tend to make sweeping statements and judgements based upon these prior unsuccessful or outdated initiatives.

Although there was some reflection on past experiences when teachers expanded on their personal perspectives, there did not appear to be displayed what Huberman described as “greater nostalgia for the past”, “increasing prudence”, and “the concern
with holding on to what one has rather than with getting what one wants” (Huberman, 1992, p.126). Rather, in direct contrast to Huberman’s finding, some in this group were embracing the changes as opportunities to revitalise and update their teaching skills. These teachers demonstrated a clear focus on what was wanted and needed and how this professional development need was going to be satisfied. This recognition of personal stagnation with regard to skill level may have been due to reflection on the philosophy underpinning the Curriculum Improvement Program. Development of a repertoire of skills and strategies enables the teacher to assist “all students to achieve the outcomes to astonishing levels” (Kerr, 2001). Exploration was not limited to teaching repertoire alone but also included experimentation with alternative assessment strategies and information technology.

The impact of Information Technology (IT) on teachers was clearly identified by those in this latter career stage but the degree of impact resulted in interesting mixed reactions. Some teachers experienced extreme discomfort with IT contrasting with others who were enjoying the challenge. Rather than demonstrating “resistance to innovation” almost all perceived the need to undertake skill training with IT in order to teach today’s curriculum and successfully carry out their increasing administrative duties (Huberman, 1992, p.127).

Huberman’s observations that teachers at this stage viewed younger colleagues as displaying less commitment to the profession were not apparent in this current study. Conversely, there was a tendency by these teachers to demonstrate a sense of responsibility for the profession, younger colleagues, and for students, an attitude that was less pronounced in teachers with fewer years’ experience. They were very positive towards students, rather than perceiving them as “less disciplined, more decadent and less motivated” as reported by Huberman (1992, p.127).

In summarising the five career stages of teachers reported in this current study, clear parallels exist with much of what was reported in the literature (Berliner, 1988; Huberman, 1992; Steffy, Wolfe, Pasch, & Enz, 2000). Significant differences were apparent in some key aspects. It was probably not surprising that teachers in the early phase of their career were engaging in, or seeking professional development related
to increasing their instructional repertoire, as this related to “survival” in the current climate of educational change. What was interesting was that teachers at the latter end of their teaching career (30-33 years experience) were also becoming more active in experimenting with student-centred strategies and alternative assessment approaches. This was in contrast to literature findings that revealed that teachers in this career stage tended to disengage from experimentation. Along similar themes, experienced teachers (7-18 years experience) appeared to be exhibiting characteristics of the most experienced stage reported in Huberman’s work. These findings tended to endorse Ingvarson’s (1992, p.4) and Dinham’s (1993a) observations related to the incidence of stress in Australian teachers. That is, although they were frenetically engaged in professional development, the teachers were also very concerned about the direction of education and how long they would be able to maintain the pace of their professional lives.
CHAPTER 9

RESULTS

PROFESSIONAL DEVELOPMENT - RURAL ISSUES

The rural teachers, like the technology teachers, were remarkably consistent in their responses in this study. Overall their early career stages, duties and reports of involvement, and interests, concerns and issues demonstrated considerable internal consistency. Many of the issues these teachers discussed related to their relative inexperience in teaching, the isolation in remote rural areas, the higher level of responsibility they had assumed and additional duties these teachers were performing.

Additionally, when specifically questioned about their professional development activities, a number of issues emerged that were exclusive to this group within the sample. These included:

- Availability of professional development
- Quality of the professional development that was available in the rural areas
- Time
- Travel
- Expense to teachers and schools
- Isolation and need for Networking
- Accessing substitute/relief teachers, and
- Other related issues
  - Quality of teachers
  - Inequities in - Specialist education areas
  - Promotional opportunities
Career Stage/Experience

<table>
<thead>
<tr>
<th>Career Stage</th>
<th>Rural Area</th>
<th>Metro Area</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>$f$</td>
<td>$P(%)$ of Total</td>
</tr>
<tr>
<td>0-3</td>
<td>8</td>
<td>16</td>
</tr>
<tr>
<td>4-6</td>
<td>4</td>
<td>8</td>
</tr>
<tr>
<td>7-18</td>
<td>7</td>
<td>14</td>
</tr>
<tr>
<td>19 onwards</td>
<td>3</td>
<td>6</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>22</strong></td>
<td><strong>44%</strong></td>
</tr>
</tbody>
</table>

Table 9.1: Career stage in the metropolitan and rural areas.

The experience distribution was different in the rural teachers with most (16% of the total sample or 36% of the rural teachers) being in the less experienced 0-3 years category. Fourteen percent of the total sample had 7-18 years of experience. The lowest percentage was in the highly experienced group with 6% of rural teachers in the sample having 19 or more years of experience. The teacher with the highest number of years' experience (33 years) was teaching in the rural situation. Within the metropolitan group of teachers most were more experienced than the rural teacher in the sample, with under a third (30%) having 7-18 years of teaching experience and 22% with 19 years or more. The highest number of years of experience in the sample was 33 years. Only 2% of the sample in the 0-3 and 4-6 years of experience came from the metropolitan area.

Career Stage with the accompanying experience was a contentious issue for rural teachers in this study. On numerous occasions the lack of experienced personnel in faculty departments was raised as a contributing factor to the difficulty encountered in implementing curriculum changes …

the majority of us here have only ever taught here … are less than 5 years out teaching, and we just won’t have the background knowledge and the understanding to move into Outcomes without overloading two or three people. It’s always two or three or four people doing all the work because they’re the ones who have been in the system for a reasonable length of time and you are always relying on their experience or expertise.
Most of the teachers reported that being in the rural areas increased the isolation, not only physically, but also in relation to being able to access collegial knowledge and expertise. Teachers indicated that being unable to attend half-day moderation or subject specialisation meetings facilitated by the WACC accentuated the feeling of isolation and feelings of inadequacy that many of the newer teachers reported experiencing …

*It’s hampering us because we’re a large school with a large proportion of first and second year teachers who really need as much guidance and support as they can get and they’re not getting that by not being able to meet with other more experienced teachers in the city. The school does themselves no favours, I mean I know it’s a financial burden but it’s probably one you’ve got to bear if you want the students to be getting the proper material.*

The need to collaborate, reflect, discuss and moderate their work and students’ work was particularly important and many of this group were in Head of Department or other similar leadership roles.

### Increased Responsibility

<table>
<thead>
<tr>
<th>Teaching Situation</th>
<th>Frequency Duties</th>
<th>Percentages Duties</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Tch</td>
<td>Other</td>
</tr>
<tr>
<td>Rural</td>
<td>9</td>
<td>8</td>
</tr>
<tr>
<td>Metro</td>
<td>12</td>
<td>7</td>
</tr>
<tr>
<td>Total</td>
<td>21</td>
<td>15</td>
</tr>
</tbody>
</table>

*Table 9.2: Teachers’ duties and responsibilities and teaching situation.*

Teachers’ duties and other roles/responsibilities were examined in relation to their situation or location (Metropolitan/Rural). Three categories emerged from the interviews. “Tch” indicated normal classroom teaching duties, “Other” covered additional duties and/or responsibilities (other than teaching) and did not include substantive or temporary higher duties such as “Head of Department” or “Teacher in Charge” eg., year coordinator, information technology systems administrator, coach,
school planning officer, vocational education officer etc. “HOD” (Head of Department) included Heads of Learning Areas and Teachers in Charge and indicated teachers who were responsible for oversight of a department(s).

Within the sample there were more “teachers” than teachers performing “other” additional duties in both metropolitan and rural areas. Although there were more teachers in the rural situation (41%), the number of teachers performing additional duties was higher (36%) than those who had substantive or temporary HOD/TIC responsibilities (23%). Overall in the sample, there were more HODs in the metropolitan area (18% of the total sample) and more teachers undertaking “other” duties in the rural situation (16% of the total sample).

In examining the qualitative data, teachers in each of the categories who were undertaking additional duties appeared to share similar concerns regardless of their teaching situation (metropolitan/rural). The main difference was that those undertaking additional duties in rural schools generally had fewer years experience and were frequently shouldering two or more additional roles with fewer collegial support systems available to them.

Issues

Rural teachers were interviewed in depth about their particular concerns related to PD for teachers in the rural situation. They were asked if there was a difference in the availability of PD in the rural situation. They were questioned as to any perceived difference in the quality of PD in the rural situation, and finally, teachers were encouraged to outline and discuss any other major factors related to PD affecting rural teachers. Teachers expressed concerns with the difficulties related to:

- travel and the time needed in order to access suitable PD;
- the expense factor - both incurred by themselves and by the school;
- isolation and the need for networking with colleagues with greater expertise;
- the difficulty in obtaining relief/substitute teachers; and
- the quality of available relief, and a number of equity and other minor aspects.
Major factors affecting rural teachers related to PD | \( f \) | \( P (%) \)
---|---|---
Time | 21 | 95
Travel | 21 | 95
Expense | 17 | 77
Relief | 12 | 55
Networking | 16 | 73

Table 9.3: Other major factors affecting PD.

The majority (95%) of teachers stated that time was an issue in accessing professional development. Time included, time in travelling to District Office, to larger country centres, or to the metropolitan area.

**Availability**

Teachers (currently in rural schools) were asked if they felt there was a difference in the availability of PD in the rural situation. The majority (86%) agreed that there was less PD available ...

_I think there’s just such a strong need for ...keeping in touch with stuff ... I’ve been to one PD ... in the past year from District Office and there probably wouldn’t be that much more on offer. And a lot of the stuff that is on offer is all generated towards Primary School teachers, which is fair enough, but that’s not of a help to us in the High School._

Some teachers reflected that it was a pity that more PD was not available in the country as there was very little to do on the weekends and PD would be a useful way to spend their time …

_There isn’t a lot else to do on a weekend, it was very easy to say, Oh well, you know, on Sunday morning, I’ll go to the PD ... when you come to the country, it’s a perfect opportunity to spend time doing PD and yet the opportunities aren’t there._
Table 9.4: Availability and quality of PD in the rural situation.

<table>
<thead>
<tr>
<th></th>
<th>Yes</th>
<th>No</th>
<th>Unsect</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>PD Available</td>
<td>19</td>
<td>2</td>
<td>1</td>
<td>22</td>
</tr>
<tr>
<td>$P(%)$ of Total Rural Teachers</td>
<td>86</td>
<td>9</td>
<td>5</td>
<td>100</td>
</tr>
<tr>
<td>PD Quality</td>
<td>15</td>
<td>5</td>
<td>2</td>
<td>22</td>
</tr>
<tr>
<td>$P(%)$ of Total Rural Teachers</td>
<td>68</td>
<td>23</td>
<td>9</td>
<td>100</td>
</tr>
</tbody>
</table>

A teacher referred to the advertising material they received from the city ...

One of the down sides of being on the Internet ... and on professional mailing lists, every day I see all these terrific courses in [the city] and I just go, Wow I'd love to go and have a look at that (Laughs) ... I'm constantly being bombarded with letters from the [the various universities] saying come along to our Open Day on this or that in Science or IT and I go 'I'd really love to but it's a bit of a hike for me'.

Quality

Linked to the issue of availability of PD was the rather controversial issue of "Quality" of professional development. This question appeared to rouse strong sentiments in the teachers. When asked if they felt there was a difference in the quality of PD in the rural situation, 68% stated that there definitely was a difference. Another teacher praised the efforts of the District Office personnel but acknowledged that they are working with limitations ...

but I know that due to staffing shortages in XXX some of the staff [in District Office] that are acting in positions are not actually skilled in that area so especially if they are curriculum improvement officers ... they are providing professional development in areas which they haven't taught or for which they aren't trained.

Just under a quarter of the teachers (23%) disagreed that there was a difference in quality in PD ...

I think the quality of the PD depends on the people offering it and selection and how you set it up and go about it, and that's entirely ...
dependent on those people, so you can have some excellent PD here or you can have some pretty hopeless stuff.

Nine percent were unsure due to their recent arrival in the rural situation or because they had never taught in the metropolitan area and therefore felt unqualified to answer categorically one way or the other.

Difficulties in accessing “experts” emerged, particularly, in encouraging them to travel to rural centres..

“whereas getting somebody up... here would cost a lot of money, it would take them a lot of time, and we often find people unwilling to come up this far”, “we have to make do and we tend to use the people we can get hold of in the end.”

A range of opinions were expressed regarding the quality of PD supplied by District Offices. Some held DO in high esteem, others felt that District office PD was limited...

with due respect to the District Office, they are generally teachers who have stepped purely into Curriculum Improvement Officer role and who have no official training quite often in their presentation and not a lot of experience either...

or appeared to be complying with Education Department agendas rather than meeting teachers’ needs... “we’re very restricted to what District Office come up with which could be limited to whatever they’re [EDWA] pushing at that present time”.

Time and Travel

Although time and travel were separate issues, and were coded as such, they were frequently linked in teachers’ responses to the question, “are there any other factors affecting rural teachers in relation to PD?” The majority (95%) of teachers in this study felt strongly that both time and travel were major issues in accessing professional development...

In XXX it certainly is not even close. The biggest expense in PD up here is either (a) getting the PD deliverers to us or (b) getting us to them. Transport costs are obscene from where we are 2.5 thousand k’s away... travel is the big killer. Even at the cheapest fares we can find this
time of the year are $500 and that's really one trip to [the city]. Blows your PD amount out of the water. Alternatively getting someone up here, you've got to pay for their flight and accommodation.

Almost all teachers felt strongly that there were inequities of travel and time for those in the rural situation in comparison to their metropolitan counterparts ...

we did it on the cheap [travel arrangement to the city for a professional conference] because we took the school's car, so it wasn't like we flew down ... and you have a situation where someone in one of the Western suburbs schools [city schools], who's been there for 35 years ... they ... get up on Saturday morning, drive down the road to the [local function centre], catch up with a few friends, go home that night, whereas for us ... you have to leave on the Friday, you have to organise accommodation, and you get back on Monday and you hardly feel like working anyway.

Fatigue from travel was a common sentiment in teachers' responses ...

when I did the Curriculum Council [PD] in [in the city], that was ... a one day thing and I got back exhausted from having to travel for the one day, to go for three hours and then come back and have to do night duty [agricultural college dormitory duty], it was a bit much.

**Expense**

Over three quarters (77%) of the rural teachers reported that expense was a factor in accessing professional development. Those teachers who raised this were quite emphatic ... "plus the financial side. Every time we want to go down to [the city] for something it's like $410 return, or you drive for 8 hours, which would you prefer?"

This teacher summed up the majority of teachers' concerns with the inequities of funding for rural teachers when he/she reflected that EDWA should provide increased funding dependent on distance from the major city centre ...

[funding] should be provided on a differential level, dependent on which district you are, and essentially the further you are from [the city], the more that the district should get and then that should be available as a pool for teachers within that district ... because that whole isolation
thing isn’t a problem in [the city] whereas, up here, you’ve either got to pay to go down to the PD, or you’ve got to pay to bring people up.

One of the teacher administrators indicated his/her irritation at the amount of money that had to be allocated in the budget in order to account for the cost of travel in addition to the cost of funding the PD ...

*I literally have to put aside probably, about $3,000 a year [for 5 staff] ... to spend on transporting staff down to [the city] and back, whereas that $3,000 in the city is spent on actual courses as opposed to travel ... You know, it’s not equitable basically.*

In addition to the expense of travelling to the city areas and the expense in transporting PD instructors/facilitators to the rural centres there was the problem that the PD had to be suitable for as many staff as possible to make it financially viable. The problem with this “economic” viability factor was that individualistic or specialist PD would be too expensive for a smaller number of teachers ... “very hard to get people to come up and give PD to a group of 8 or 9 or 10 Maths teachers”.

**Isolation and Networking**

Almost three quarters (73%) of rural teachers reported they felt isolated and had less access to their colleagues through being situated in rural areas ... “Being so isolated up here it was important, ... that we kept contact with people in [the city] and kept up with what ideas were, or what was happening in [the metropolitan area], ...as well as the rest of the state”.

New teachers reported being nervous, disappointed, and frustrated at the lack of support available to them in their country situations and indicated that this was seriously disadvantaging them ...

*there are no upper school teachers there, but even to try to gather the Science teachers in the Kimberley in one place is almost as expensive as flying them to [the city], so it is prohibitively difficult to get ... networking within our district let alone to get them to [the city].*
Almost all (95%) of the rural teachers felt there were inequities in the system in
accessing professional development, particularly that held in the metropolitan area.
An issue that was passionately discussed was undertaking PD during their holidays ...

there's a lot of PD held during school holidays for country teachers,
whereas city people are giving up an afternoon now and again, but
giving up a week in your holidays is very valuable time. Stopping you
from doing other things or maybe going on holidays if you want to get
that PD. This is where we are severely disadvantaged. Inequities.

When querying teachers' rationale for undertaking PD during holiday periods, if it
was such a source of resentment, almost all stated they felt a responsibility to
undertake the PD so that their students would not be disadvantaged by their lack of
knowledge and/or experience. They also indicated they relied on networking
opportunities during the holidays to access and draw upon the knowledge and
expertise of more experienced colleagues for help and guidance.

**Relief/Substitute Teachers**

Just over half (55%) of the rural teachers reported concerns over obtaining relief
from their classes in order to attend PD … “we’ve been denied going on PD through
the fact that they [the school] couldn’t get relief for us, because there’s a shortage of
relief teachers up here”. Others reported that there were dilemmas for teachers
related to leaving their classes with other teachers who may or may not conduct the
lesson as planned ...

if you wanted to go off to some ... PD and there wasn’t anyone to take
your place, it could be a difficulty. Or leaving your classes in the hands
of someone who really doesn’t know what they’re doing and you come
back and you sort of feel, Oh well I went away to do this and look what’s
happened to my kids work in the meantime.

**Other Factors**

**Quality of Teachers**

Three teachers raised a contentious and controversial issue in linking PD
requirements with competency of teachers in the rural situation. One went as far as to
indicate that some of the teachers sent to the country areas were being sent because they were less competent thereby requiring more professional development …

and that is a major problem, because the teachers that are coming out here because there is nothing else [no places in the city for them] …, they are incompetent and in need of things like PD and the other side of it is that those teachers who do have a handle on things are literally falling apart at the seams because they are trying to uphold [support] these staff as well as do their own job … and mentor.

These “less competent” members of staff reportedly increased the workload for their colleagues as they (the more able teachers) were having to take responsibility for all the upper school units to ensure students were not going to be adversely affected …

the people coming in couldn’t be trusted. Given the experiences that we’d had beforehand, you couldn’t trust leaving a class of Year 12s to a new person coming in, because you didn’t know what they were like, and that’s the mentality that we’re getting … here, you can’t trust new people, because so many new people have stuffed up.

The increased workload also had PD implications for these more capable teachers in order meet their needs in shouldering a heavier load. All three teachers indicated these “less competent” staff members were also burdening the PD funding because they didn’t have basic skills and needed more support than the other teachers in their departments.

**Inequity for Special Areas**

Teachers in special areas, such as Education Support and Learning Assisted Programs, reported experiencing difficulties in accessing appropriate PD in the rural situation. One respondent was involved in Education Support within the high school and felt disadvantaged in relation to PD that was focused on Special Needs Education issues and concerns … “But up there in XXX anything to do with any sort of learning difficulty of any sort whether it be intellectual disability… I grabbed it and went with it”.

This teacher stated that he/she often settled for less applicable PD because it was all that was offered … “I think, however, had I been in [the city] and that had been
offered, there might have been something else I could have spent my time on that was more related to Ed Support”.

**Promotional Opportunities**

Two teachers reported that there were distinct inequities in the system in relation to PD and promotional opportunities for rural teachers. The sentiment was expressed that the range of PD offered is very limited and as a result teachers and administrators in rural situations are at a disadvantage compared with their metropolitan colleagues. These metropolitan teachers had increased opportunities to attend a great deal more PD which could be used on their Curriculum Vitae …

*I know a lot of other people who want to move up the ladder when they’re left competing against their counterparts who are in [the city] who get to list an incredible amount of PD, it’s inequitable because somebody in the country cannot afford to attend that many PDs. And as far as the country counterparts go, yeah, it’s inequitable, as far as the promotion system goes.*

Additionally, this had “transfer” implications for senior administrators, as they are unable to compete on an equal footing with their metropolitan colleagues … “*the biggest fear amongst administrators at the moment is, God if you go country you’re never going to get back*”.

Another unusual concern raised was that rural schools are frequently excluded from trials and projects due to their remote locality, thereby excluding teachers and administrators from being involved in this form of professional development …

*a lot of trial schools and … projects … that happens in the metro area and not very often in the country area. So again, your principal at [the city school] can say, Well, I’ve been on the Local Management School trial, I’ve been on the XXX trial, I’ve been on the Behaviour Management trial. And your poor little [country school] Principal goes, Well, you know, I’ve been a principal. You know, just those opportunities aren’t there, so how can they compete when it’s all Merit based now, on getting back there [attaining a merit selection transfer back to the city].*
Appraisal Process

Performance management was explored in previous chapters, wherein performance appraisal process was more of an issue for rural teachers due to the number of them who were temporary teachers at early stages of their career. A finding that emerged was the widely varying levels of satisfaction with the temporary teacher appraisal process around the state. Teacher views ranged from satisfied to resentful. From teachers’ reports the appraisal process appeared to vary considerably across the state. An example cited as “unfair” by a beginning teacher was where he/she had been required, at short notice, to develop an information technology PD session for colleagues. Immediately prior to commencing the session the school administrator informed him/her that his/her appraisal was to be based on the PD session that was about to run …

I didn’t actually like it (the process). I didn’t approve of it because I felt it was very last minute. And I didn’t think it was fair because it had nothing really to do with the kids - my interaction with the kids, because it was out of school time and ... I didn’t think I should be evaluated on something that should have really no reflection on my classroom teaching.

Other teachers indicated that the process was not being conducted appropriately or legitimately by administrators and this was of concern as their reemployment in the following year was purportedly dependent on the results of the appraisal.

Summary

Rural teachers reported having a range of unique issues that their metropolitan colleagues did not encounter to the same extent. The key factors that affected professional development were the lack of available PD, variable quality of PD and presenters in rural centres, and the difficulties related to time and travel. Time was a multifaceted issue including the time spent in travel and being allowed the time to leave their classes and attend professional development. Travel encompassed the issue of distance, mode of transportation and accommodation. Teachers clearly indicated many equity issues existed related to professional development for rural
teachers. Some of the equity issues addressed included the lack of readily available PD with sufficient diversity, teachers’ need to attend PD during their holiday periods in order to network and access necessary knowledge and expertise, expense, isolation, and promotional opportunities. All of the rural teachers felt strongly about most of the issues discussed in this chapter.

Discussion

Availability
Almost all of the teachers in the rural areas felt strongly that they were at a serious disadvantage compared to their metropolitan colleagues in continuing their professional development. A correlation existed between the distance from the capital city and the schools in which the teachers were situated and the tone of the response. That is, the further away teachers were situated from the metropolitan area the more vehement their comments became regarding the difficulties involved in accessing quality professional development.

Teachers’ descriptions of their professional development activities did reveal a decrease in variety to that of metropolitan teachers in this study. Almost all were concerned about the lack of availability in the rural situation, which served to accentuate teachers’ feelings of isolation. Some teachers found it ironic that they generally had less to occupy their free time in isolated rural situations, thereby having more time to spend engaged in professional development, and yet the choice available was severely limited due to the isolation.

Quality
The majority of rural teachers indicated that availability was an issue for teachers, on the other hand the quality of professional development was hotly debated. Many indicated that quality was highly variable whether in the metropolitan or rural areas. The aspect that was readily identified was quality within faculty staff in rural schools. Teachers reported encountering considerable difficulty in accessing high levels of expertise within the school due to the majority of faculty members having limited experience. This problem was apparently exacerbated at a district level with
District Office staff being drawn from the local pool of teachers. This resulted in curriculum improvement officers, whose role was to support curriculum change, having similar levels of expertise and experience to those in the school. The limited levels of expertise in rural schools was indicated by teachers in the study as due to experienced teachers’ reluctance to move from metropolitan schools, particularly if they have previously taught in the rural area in order to obtain permanent status.

The limited level of expertise available from district offices was interpreted by some of the teachers as a demonstration of the employer’s neglect of staff in the rural situation. This expressed view was of particular concern as these teachers were frequently in the induction phase of their career and were forming opinions regarding their employer and teaching conditions that were likely to stay with them for the greater period of their professional life. Concern was underscored by the reported perceptions of the more experienced teachers who stated that their poor opinion of the employer had been formulated early in their career and had not been altered since that time. Additionally, some of these rural teachers indicated they were reconsidering teaching as a worthwhile career choice, which endorsed Huberman’s (1992) observations that some teachers maintained an attitude of keeping their options open rather than committing immediately and permanently to the profession. The conditions within which the teachers were working were not necessarily representative of the situation across the state; nevertheless, the views expressed by them in this early stage appeared to become more entrenched rather than modified as experiences changed. This phenomenon has implications for EDWA considering the number of new graduates that are placed in rural teaching positions directly from completion of professional preparation courses.

**Time and Travel**

Distance was identified in this study as a two-fold problem in accessing professional development for teachers in schools thousands of kilometres from the metropolitan area. Teachers explained that repeated travel to the metropolitan area for professional development was prohibitively expensive, which severely limited their opportunities to travel to professional development available to them, and conversely, the expense involved in procuring quality expert providers who were willing to travel to the
remote school also limited the availability and choice. Another dimension of distance was the travel time to reach professional development in the metropolitan area. In some cases, teachers needed to take a number of days off school to account for the travel time to reach professional development. This had further implications for the schools in obtaining relief teachers to cover the additional time and frequently raised the cost of some professional development to prohibitive levels.

**Expense**

Expense certainly evoked emotional responses from the teachers in this study. All felt there was an equity issue in the employer providing sufficient professional development funding for all teachers, not just those in the metropolitan areas. The majority of teachers had incurred expense for their own professional growth and indicated that this was necessary in order to access good quality professional development (generally in the metropolitan area) in order that their inexperience did not deleteriously affect their students.

**Isolation and Networking**

A key characteristic of the rural teachers work situation was isolation, which was accentuated by the predominance of relatively inexperienced colleagues. Teachers in this study were conscious of their need for support from more experienced teachers and chose professional development that had a networking dimension. Curiously, the period of time teachers served in the rural areas appeared to move them from apprentice/novice stages, as described by Steffy, (Steffy, Wolfe, Pasch, & Enz, 2000) and Berliner (1988), through to the professional stage in a more streamlined sequence. The shift in career stages may be due to the increased responsibility and demand for self-reliance (due to the inherent isolation) that existed for most of the teachers in rural schools in this study. The higher levels of competence and self-confidence reported by the teachers, occasionally caused frustrations when these teachers moved into metropolitan school cultures that were more stable and staid.
Promotion

An equity issue raised by rural teachers in this current study was that professional development is a key component in promotion. As may be expected when applying for promotion through the merit selection process, teachers are required to demonstrate their commitment to ongoing professional growth. This was raised by the respondents as a serious concern for teachers in rural areas who not only have difficulty in transferring back to the metropolitan area now that merit selection processes have been introduced, but are additionally disadvantaged in being unable to compete with metropolitan counterparts due to the limitations of accessing professional development in the rural situation. Conversely, the opportunities for gaining experience in promotional positions were explained by the teachers as considerably higher in the rural areas due to the limited nature of the field of competition. This did not mean though that teachers returning to the metropolitan areas from rural areas maintained their promotional status. Unfortunately, the increased promotional opportunities in the rural situation may in fact, have increased the level of frustration experienced by capable less-experienced teachers who returned to the metropolitan area and were unable to advance due to the comparatively stable nature of promotion in the metropolitan area.

The key issue that emerged from rural teachers' reports of professional development activities was a pervading concern with equity. Almost all of the teachers in rural areas in this study identified at least one aspect related to inequitable conditions compared with their metropolitan colleagues. The most significant concern was the lack of available professional development, with time and travel adding further dimensions to the same issue. Clearly problem areas existed in relation to professional development for rural teachers that need to be addressed in a more systematic manner by the employer. This would appear to be highly desirable as teachers in this study frequently identified that their opinion of the employer was formulated early in their careers. Considering the state of school and system-wide culture as discussed in the previous chapter, re-examining systematic professional development that was more equitable for rural teachers would be timely.
CHAPTER 10
CONCLUSION

A key finding of this study was that teachers were generally committed professionals who reported considerable involvement in professional development so that they would maintain a high standard of knowledge and expertise in order to provide a higher standard of education for their students. In this study teachers' commitment translated into an unexpectedly high number of hours (300 hours/person/year) being expended by teachers in professional development. Interestingly, these teachers did not view themselves as extraordinarily different from the average teacher in the population. While the majority of teachers in this study were involved in, and committed to, their ongoing growth as teachers, many voiced strong concerns related to the amounts of time, energy and money being expended on professional development that were largely ineffective and having little impact on students. Professional development efforts appeared to be fragmented with little common direction apart from system-wide policy-based professional development. Although policy-based professional development was being consistently provided within mandated school days it appeared to have little effect on teacher behaviours in the classroom (e.g., teaching strategies and skills used by teachers) and in many cases was actually counter-productive to implementation efforts. The findings of this study lead to the major conclusion that professional development within the State Government educational system in Western Australia is in need of review and considerable reform if it is to become more effective, be refocused on teaching and learning, and rekindle teachers' enthusiasm and endorsement.

Learning and Teaching
From teachers' reports regarding their priorities, perceptions of the educational culture and directions in education, the employer and teachers appear to be increasingly at odds in terms of priorities. This also endorsed the literature findings related to the differing priorities and perspectives of personnel at different levels within education, for example, teachers, administrators in schools, district level, and
central governance (Garmston, 1987; Joyce & Showers, 1995; Webber, 1995b; 1995c; Fullan, 1998; Kerr, 2001). Teachers in this study repeatedly emphasised that their key priorities were matters related to teaching and students, and the efficient functioning of their school. Teachers’ perceptions of EDWA were that of a bureaucratic, policy-generating hierarchy purely focused on accountability and quality assurance processes. This view was echoed by a recent Ministerial Task Force (2001), established to investigate the Government educational system, which identified “problems in the department’s culture, structure and decision-making processes” and outlined that it had fallen “prey to a tendency to lose sight of its reason for being and become a self-perpetuating bureaucracy that is turned inward on itself” (New ethos needed in education, 2001, p.14). The Ministerial Task Force elaborated on the deficiencies of the Government educational system by stating “the department should put children first and focus on the fundamentals of teaching and learning”, which reinforced some of the key priorities outlined by teachers in this current study.

Cherry Collins’ (1991) discussion of the clash between established (research-based) best practice in professional development and the Australian political educational culture is worrying when considering her chapter was published over ten years ago and yet we are still facing the same issues in 2002.

**Policy Implementation**

While administrators in EDWA may argue that the Curriculum Improvement Program (incorporating the Curriculum Framework, Student Outcome Statements, and the Students at Educational Risk policies) was primarily focused on learning and teaching, teachers did not share this perspective. In fact, from teachers’ comments in this study, it was obvious that they did not perceive the Curriculum Framework as a learning and teaching initiative (and therefore a personal priority), rather, they viewed it as yet another policy that had emerged from the policy-makers in the Education Department of Western Australia. The simultaneous implementation of multiple policies that had occurred in the same timeframe as the Curriculum Improvement Program was identified by many teachers in this study as a major
contributing factor to their somewhat cynical perspective. Considering the magnitude of this Curriculum Improvement Program and the extent of the change required of teachers, it should have been the only policy implemented over the subsequent five-year period. What has apparently resulted is what Guskey and Sparks (1994, p.35) described as the maintenance of the “status quo” by teachers as a “coping mechanism” that “seriously distorts the change”.

**Self-Determination and Trust**

Another key issue for teachers in this study was that of self-determination in decisions related to professional development. Associated with self-determination was the issue of trust, that is, being trusted by the employer and school administrators to legitimately engage with collaborative professional development and to efficiently and productively use the time and funding resources allocated to such activities. Even though this was a key concern for teachers in this study, the literature reveals that when the reins are handed over to teachers in making decisions they likewise fail in making sound choices. The issue of self-determination resonated with concepts in the literature. These included teacher leadership and empowerment, the self-management of schools and associated decision-making, and the development of learning communities and collaborative structures that effectively facilitated teacher professional growth. Teachers in this study indicated that the employer’s apparent lack of trust in teachers was deleteriously impacting on their ability to implement the various policies emerging from EDWA. A cyclical situation was thus created whereby teachers were unable to implement change. This was explained as due to lack of expert guidance and collaborative time for reflection, discussion and development of the teaching resources that were required for effective implementation. This lack of timely implementation by teachers, in turn, resulted in the employer formulating further policies in order to increase teacher accountability, compliance, and the pace of implementation thereby multiplying the number of policies, pace of implementation and stress on teachers. Some teachers in this study, particularly those in leadership positions, predicted that this vicious cycle could not continue without serious consequences to teachers, morale and educational culture.
Clearly what is needed is a major shift in staff development. Sparks and Hirsh (1997, p.12) indicated that the paradigm should shift from focusing on individual development to individual and organisational development.

Model for Systemic Professional Development

Considering the key findings from this study, the need to explore the “reculturing” (Hargreaves & Fink, 2000, p.30) of education within the Western Australian situation becomes apparent. An effective medium to do this would be by reviewing and reshaping current professional development processes.

Developed from the findings of this study, Figure 10.1 displays a proposed model for systemic professional development at the macro levels of central and district education governance. Figure 10.2 focuses on the microcosm of the school and displays effective professional development structures involving teachers.

The central component of this Proposed Systemic Professional Development Model is the employer, not as the generator of policy and accountability mechanisms, but rather, as an organisation with the capacity to obtain expert advice from multiple credible sources on current educational trends. The employer also has the unique overview perspective to provide clear learning and teaching vision, the financial resources and power-base to access, source and supply expertise from within Australia and overseas. Additionally, the employer has the authority and infrastructure to channel that support into teachers’ professional development at the district and school levels. As Sparks and Hirsh (1997, p.12) indicate the employer has the capacity to shift the staff development paradigm from “fragmented, piecemeal improvement efforts to staff development driven by a clear, coherent strategic plan for the school district, each school, and the departments that serve schools”.

Conclusion
The School

Professional Development Sources:
- District Office expertise
- Consultants
- Prof. Associations
- Colleagues

Format including:
- Demonstrations of practice by experts
- Provision of resources
- Practice of skill in workshops
- Support in the workplace through collegial peer-coaching/action learning dimensions

Collegial Relationships (within and across Learning Areas)

Regular meetings with colleagues for learning and teaching focused priorities:
- Planning of lessons/innovative teaching strategies
- Peer coaching (reciprocal observation)
- Reflection & discussion
- Development & sharing of materials
- Examination of student work
- Mentoring of colleagues
- Other

Teacher

Teacher Colleague

Teacher Colleague

Teacher Colleague

Figure 10.2: Professional development that promotes learning communities in schools

Conclusion
Teachers in this study indicated that policies emerging from EDWA currently demonstrated a lack of understanding in three areas. First, the school culture within which they are to be implemented. Second, the existence of credible, extensive research proving the effectiveness of the initiative. And third, the integration and links with other policies, thereby creating disparity and fragmented implementation. In order to align teachers’ priorities with governance requirements, the key focus needs to be identified. As a learning organisation, facilitating student learning should be that key focus. Policy development should be informed by research in education and should revolve around improving students’ learning.

The proposed Systematic Professional Development model, (Figure 10.1), outlines the role of the responsible employer. That role is to develop closer ties to a range of organisations and individuals in order to source high quality professional development options for its employees and provide an environment that is conducive to ongoing, contextualised professional growth. In this model, district offices become the conduit for quality professional development and expertise for other district offices, whole-school staff and/or individual teachers.

**Universities**

Robertson (1993) documented the distancing from universities by educational governance in Australia over the past two decades. This model (Figure 10.1) proposes that EDWA re-establish its ties with these tertiary educational institutions, in order to encourage professional dialogue, promote and recognise credential-orientated professional development, and interaction and relationships between academic researchers, EDWA, schools and teachers. This proposed relationship has reciprocal advantages, in that, educational governance would gain insights from cutting edge research, theoretical understandings and world-wide perspectives, particularly in relation to professional development, and teachers/schools would be able to tap into expertise in universities, request specialised context-specific research and provide sites for practicum placement for “apprentice” teachers (Steffy, Wolfe, Pasch, & Enz, 2000). Likewise, universities would be able to re-establish and maintain realistic understandings of the current situation within educational environments, in order to maintain relevancy and currency in their professional
preparation programs, and access teacher/leader support for mentoring of "apprentice" teachers (Steffy et al, 2000). The benefits to universities would transfer to superior graduates entering the education situation.

**Technical and Further Education**

Similarly to universities, the model (Figure 10.1) proposes that EDWA establish closer ties with Technical and Further Education (TAFE) institutions. This would enable EDWA, schools and teachers to access insights resulting from TAFE institutional relationships with industry regarding the demands for future employees (school students). It would provide industry with an avenue for consultation regarding the educational courses and graduate attributes required of school leavers. Increased consultation, shared understandings with industry and professional development resulting from this relationship would enable teachers to more effectively cater for students' educational needs in the case of those non-university bound.

**Professional Associations**

Professional associations were frequently identified by many teachers in this study as providing a valuable service, particularly in the provision of professional development. However, the effectiveness of the professional development was variable. Establishing closer ties between EDWA and teachers' professional associations would provide the employer with a venue and medium with which to facilitate seminars and lectures for visiting educational specialists, and enable the employer to re-establish consultation relationships with subject-specialist curriculum leaders around the state. It would also serve to create greater understandings between EDWA and secondary teachers, particularly concerning the importance of their subject-specialisations and the impact of educational trends on these specialisations. Professional associations were reported in this study as playing a significant role in facilitating collegial activities for teachers and the continuation of this role would provide valuable assistance to EDWA in the employer's construction of "learning communities" which is the key structure proposed in Figure 10.2 for promoting professional development at the school level. By EDWA utilising and supporting professional association activities, the predominantly individualised (Hargreaves,
culture of schools in Western Australia may actually be recultured into more collaborative institutions. Professional associations could also provide a forum for the collation, publishing and distribution of curriculum leaders’ successful ideas and resources.

**Consultants**
A consistent problem that was raised by teachers in this study was the need for expert assistance and guidance in the implementation of most of the policies. This lack of available expertise resulted in teachers attempting to help each other, which while laudable, tended to result in a pooling of ignorance or acceptance of outdated practices. In this proposed model utilising the university and other professional sources would enable EDWA to access experts across a range of areas and subsidise visits for purposes of advice and professional development for District Office personnel and schools. With this proactive role in securing superior quality expert presenters, providing workshop tours into rural areas, demonstrating commitment to learning and teaching priorities, and overtly acknowledging and promoting learning communities, EDWA may progress in counteracting the negative effects of the prevailing educational culture.

Although procuring expertise is important, EDWA would need to demonstrate discrimination regarding the “experts” they sponsored. As outlined by Guskey and Sparks (1996), a need exists to investigate the “quality” of the professional development initiatives being provided for schools and teachers. Guest experts selected by EDWA would need to demonstrate a sound understanding of the principles of adult learning and structure their professional development activities in such a way that they were relevant, active, interactive, and reflective (Chickering & Gamson, 1991).

**District Office**
In this proposed model (Figure 10.1), district offices would become an intermediary between the employer and schools and a conduit for professional development that had been selected and obtained by the Education Department of Western Australia.
District offices could also facilitate collaborative professional development across schools and even across districts. Some district offices were reported in this study as providing excellent service and professional development for teachers, yet a lack of consistency in quality was evidenced across the state. The structure of district office would enable it to be redeveloped into centres of professional development or a “one-stop-shop” for professional development for schools and teachers. The advantage that district offices have is that they are uniquely aware of the context in which teachers are working in their particular locality.

A proposal resulting from the findings in this study, is that district offices could provide an alternative career advancement pathway for curriculum leaders within schools and that these teacher-leaders, identified by their proactive collaborative leadership within schools, could be seconded for defined periods. These teacher-leaders should be provided the opportunities to access additional specialist training with leading consultants and other educational experts (and across the subject-specialisations) if they feel their experience and expertise to be lacking. They could subsequently be utilised in supporting teachers in schools across their district. Incentive schemes for these curriculum leaders, whereby there were opportunities for promotion and/or salary bonuses for serving in remote districts for short periods may promote a larger pool of expertise especially across rural districts. This pool of leaders/specialists prepared to serve in different districts coupled with EDWA’s supporting tours of secular experts would contribute towards reducing the isolation, equity concerns and lack of professional growth opportunities reported by teachers in remote rural situations in this study.

In order to break down some of the current negative views regarding district offices, an incentive scheme for schools to partner with district offices may be worthwhile. These schools could negotiate to have District Office Teacher Leaders based part-time in their school with financial incentives provided for schools that engage in professional development relationships. This could result in greater utilisation of District Office resources and increased development of school collaborative cultures by the support of in-school teacher-leaders. This could also be particularly valuable in schools with a high number of graduate teachers, in that teacher-leaders based in
schools could provide a mentoring role both in learning and teaching expertise and in providing a positive induction experience to school culture.

The use of technology should be explored in providing a mechanism to support the ongoing professional growth opportunities for teachers. Technology, namely, Information Communication Technology (ICT), could be a valuable medium to develop and facilitate teacher collaboration between schools and districts. The district office could be an excellent facilitator and mediator, assisting teachers and administrators from different schools to form professional development partnerships. This use of technology would be most advantageous to teachers in the rural areas who are isolated and lack ready access to professional development activities. This proposal is forwarded with a caveat, though, that the Education Department of Western Australia would need to review the technology that has been introduced into schools. A serious impediment to this proposal is the current lack of uniform, standardised and sturdy technology infrastructure, coupled with the lack of expertise to run and maintain such a system.

The multifaceted role of district offices in this model could provide vital marketing tools for the employer in counteracting existing low morale and negative culture within schools. This potential marketing dimension would be enhanced by District Office staff providing efficient, relevant, and expert professional development, while demonstrating a caring, supportive and approachable manner in interactions with schools and teachers.

**Learning Communities in Schools**

Figure 10.2 is based upon what the literature describes as the development of learning communities (Glatthorn, 1987; Goodson, 1992; Yopp, Guillaume, & Savage, 1993-94; Joyce & Showers, 1995; Guskey & Sparks, 1996; Katzenmeyer & Moller, 1996; Anderson, Rolheiser & Gordon, 1998; Darling-Hammond, 1998; Burke, 2000; Chandler, 2000; Feiler, Goldberg & Pesko, 2000; Jenkins, 2000; Slattery & Clauss, 2000, Mitchell & Sackney, 2001). Exploration of the literature on effective professional development clearly documents school-based, collaborative activities that focus on learning and teaching and incorporate the exploration of innovative
teaching strategies, discussion, reflection and development of related resources, teacher-research and the examination of student work as the most likely to result in positive effects on student learning. To this end the foundation of the model (Figure 10.2) for school professional development is teachers’ collegial relationships whereby teachers are able to construct their knowledge from their own practice, their colleagues’ and with input from experts within educational spheres (Mitchell & Sackney, 2001). This model utilises Katzenmeyer & Moller’s (1996) considerable research which establishes the value of teachers as leaders in professional development within the school context. The model also focuses on a constructivist perspective of learning for teachers, unfortunately all too often not the case. As Ann Lieberman bemoans “[w]hat everyone appears to want for students – a wide array of learning opportunities that engage students in experiencing, creating, and solving real problems, using their own experiences, and working with others – is for some reason denied to teacher when they are learning” (Lieberman, Darling-Hammond & McLaughlin, 1995 in Sparks & Hirsh, 1997).

As outlined by Mitchell and Sackney (2001) and King and Newmann (2001), non-teaching staff, teachers, and principal and other administrators would identify the school priorities that would become the subject of collegial meetings through a democratic whole-staff arrangement. Ensuring all teachers and administrators had input into this selection of school priorities could serve to empower and ally teachers to this professional development process and contribute to the sense of “learning community” (Sparks & Hirsh, 1997). This acknowledges that “school capacity” aspects, such as, teachers’ knowledge, skills and disposition; professional community; program coherence; technical resources; and principal leadership positively influence student achievement (King & Newmann, 2001). This could also provide opportunities for teachers who had previously disengaged from whole-school professional development programs to rekindle their enthusiasm and increase their involvement in exploration of teaching practice.

This “learning communities” model proposes that EDWA formally recognise and prioritise, teachers’ collegial meetings (both within and across learning areas) through the allocation of time within the school day. Within these meetings teachers
would reflect on and discuss matters related to learning and teaching. Teachers would be encouraged to plan innovative lessons together and share materials/resources, observe colleagues engaged in teaching the innovation, reflect on and discuss the observed lessons and interactions with students (non-critiquing - identifying what worked well and what was learned from the teacher conducting the lesson), and evaluate and document successes and failures of the innovations and trialed practices, identifying further proposed refinements and developments. These activities should overtly include the examination of student work and activities with a view to documenting student efforts and achievement in order to increase educational outcomes. Teaching and learning matters, as the focus for the collegial meetings, would need to be prioritised, rather than being consumed and distracted by the mechanical functioning of the school, which was frequently reported by teachers in this study about their school meetings.

These meetings could include curriculum leaders from district offices working in the school and would provide an excellent mentoring structure for new teachers. Teachers would need to be conscious of accessing expert assistance to maintain the momentum of development and refinement within their peer-coaching group through the avenues of district office workshops, professional associations, and/or consultants.

The collegial relationships embedded in this proposed model, would serve to break down the isolation inherent in teaching, increase academic dialogue between teachers, provide satisfaction for teachers (as teaching and learning matters were reported as their primary focus) and contribute to re-establishing more positive school cultures. These elements are represented in Guskey and Sparks’ (1996) model on the multidimensional relationships between staff development and improving student learning. It would be anticipated that these learning communities would contribute to the central focus of teaching, positive student learning outcomes.

**Evaluation**

A concern that emerged from this study was that teachers, particularly those in the later career stages, who have experienced a number of policy changes and initiatives
over the period of their careers, tended to pre-judge the likely success of new initiatives and approaches based upon prior less-satisfying, or less-successful, experiences. A factor that may have contributed to this lack of satisfaction was that teachers were frequently unable to measure the success of changes in teaching practice or the impact on their students’ learning resulting from various initiatives. This meant that teachers were working with no firm evaluation or feedback that served to inform their future directions for teaching. It would appear vital for schools, as well as teachers, to track the implementation of innovative pedagogical practices in order to obtain definite information regarding the status of their school-identified priorities and teacher and student efforts (Webber, 1987; Darling-Hammond & McLaughlin, 1995; Schwab & Spady, 1998; Moffett, 2000). Systematic inquiry should consist of a well designed, considered approach that collects a range of information from a variety of sources and be undertaken over time as described in Guskey and Sparks’ model of professional development evaluation (Guskey & Sparks, 1991). Increases in student success and/or achievement, as outlined in the work of noted researchers such as Guskey, Sparks, Joyce, Showers and Darling-Hammond, will provide teachers with the motivation to continue their efforts with further teaching innovations or development of teaching repertoire and materials. Tracking of progress will also serve to provide information enabling decisions to be made regarding future directions, allocation of funding, and implications for staffing, and would provide EDWA with data to satisfy their accountability and quality assurance requirements.

**Effectiveness**

From the professional development activities described in detail by teachers in this current study, the policy makers, senior administrators, Principals and even most teachers, were unclear on what constituted effective professional development and what comprised the principles of adult learning. State-wide professional development provided by EDWA needs to be re-examined and re-structured to ensure it is relevant, active, interactive, and reflective thereby demonstrating the principles of adult learning as outlined by Chickering and Gamson (1991).
Although the proposed Systemic Professional Development Model (Figure 10.1 and including 10.2) was designed to encompass the principles of effective professional development structures based upon the literature and the findings of this study, it does not purport to be the only effective professional development model possible. Some teachers in this study were acutely conscious of the need to update their knowledge and expertise in either their subject-specialisation or in another field that was impacting on their position within the school. Some sought to do this by continuing their studies in tertiary qualifications. This form of professional development was reported by teachers as highly effective, serving to keep them mentally stimulated, engaged in ongoing learning and better equipped for promotion in the self-managing school environment. However, since the introduction of full fees for teachers wishing to pursue his/her studies in Australian universities, it has become a relatively expensive professional development option, which is a similar situation to tertiary education in Canada and the United States (Webber, 1995a).

These teachers indicated they undertook further studies for their own personal benefit and satisfaction; unfortunately they were disappointed that their efforts were not formally acknowledged or encouraged by the employer. This appears to be counterproductive to promoting teachers’ ongoing professional growth and indicates that the EDWA needs to re-examine its stance on credential-orientated professional development in order to actively encourage the acquisition of postgraduate qualifications. Encouragement of teachers to continue their education could possibly take the form of salary increments and/or acknowledgement in the promotional processes. Pay increments or higher pay scales for teachers with postgraduate or other qualifications would acknowledge and, to an extent, compensate for the fees involved in undertaking further qualifications.

**Resourcing**

Frequently throughout this study, teachers identified funding of professional development as the cure-all for the woes of the educational system. While this may be a convenient answer it does not appear to be that simple. Resourcing of professional development was a contentious issue for teachers in this study and needs to be reviewed with a view to increasing the accountability and equity of funding. Increasing the resources available to district offices in order to facilitate the cross-
district service as proposed in the model (Figure 10.1) would enable teachers in rural areas to have access to curriculum leaders with higher levels of expertise, and the opportunity of professional development tours of rural areas by visiting experts. Investigation needs to be undertaken into the amount of funding allocated to individual teachers, to explore funding options to teacher teams, and the promotion and dissemination of information regarding how to access that funding. This is crucial as teachers in this study reported considerable variation across schools or were totally unaware that there was funding available for professional development activities.

Information Technology

An aspect with resource implications was the current information technology emphasis in state Government schools. In keeping with world-wide technological trends in the area technology use, EDWA formulated a Technology 2000 policy which outlined the technology focus for schools across the state of Western Australia. Findings of this current study revealed a non-uniform implementation process has occurred with some schools devoting time and money to up-skilling one or more key staff in expertise related to information technology, while others allocated the responsibilities to staff without providing for adequate training. Based upon the reports of teachers, EDWA needs to either substantially fund the training of key information technology teacher-leaders across the district who can provide expert assistance to schools or allocate funding to contract commercial firms to maintain school information technology systems. Although the employment of commercial technicians may initially appear to be the simple answer it does not address the clear need for teacher-leaders who have the required information technology and teaching expertise to assist colleagues to explore technology in relation to supporting constructivist learning as well as basic information technology skills. Information technology teachers and those responsible for school computer networks in this current study indicated that they were too overloaded with maintaining school technology infrastructure to be able to adequately support colleagues’ exploration of innovations in technology applied to learning. This endorsed Yildirim’s (2000) perception that “students are learning and teachers are teaching in much the same way they did twenty or even fifty years ago”. Technology
usage will be unlikely to progress beyond basic levels unless systematic expertise is provided with appropriate financial provision.

Although most of the teachers in this study were highly committed teachers engaging in considerable amounts of professional development, there did appear to be two teachers who were disengaged from professional development and disenfranchised with teaching. This leads to a proposal that EDWA explore the viability of establishing redundancy funding for teachers who can no longer satisfactorily support student learning. Redundancy funding could be accessed by schools that have teachers who have disengaged from teaching and professional development activities (both personally chosen professional development and that provided by the school), and are unwilling or unable to rekindle their enthusiasm for teaching. This would encourage these teachers to seriously consider other career options or retirement. The process of selection for redundancy packages would need to be overseen by district offices to ensure procedural fairness.

Limitations of the Study

If there had been no constraints placed on this study the chosen method for collecting the data would have been to access every teacher in the state or a larger more representative sample in order to gain a more accurate picture of teachers’ professional development activities. Due to the prospective respondents being widely scattered across the state of Western Australia, telephone interviews were chosen as the most appropriate data collection method. It may appear at first glance that a form of self-selection occurred in teachers who wanted to tell their story requesting to participate in this study. However, this was generally not the case. Subsequent to visits to schools to outline the study and invite participation, the researcher did have a few teachers who made contact requesting to be included, nevertheless, the majority of the sample was obtained by directly contacting teachers at school and inviting their participation. Some were initially hesitant, for a range of reasons, but once they commenced the “telling of their story” they became enthused and readily participated. Another concern may have been that the teachers involved in this study were more proactive in their professional growth and as a result their principals were less aggressive gatekeepers. This concern is addressed by a number of aspects. First,
extremely proactive teachers frequently did not view themselves as “extraordinary” in comparison to their peers, with many stating they were undertaking the same amount and types of professional development as numerous colleagues within similar professional organisations (colleagues in other schools across the state). Second, the fifty teachers who comprised the sample represented twenty different schools (25% of the total number of senior high schools in this state). Third, not all principals of the twenty schools were prepared to facilitate this study. In fact many were indifferent and did nothing to assist or block entrée into their school.

The demographics of the sample in this study did not appear to display an accurate representation of teachers in promotional positions within the Education Department of Western Australian. The sample comprised more female Heads of Department and Teachers in Charge, and this gender weighting was not representative of secondary teachers across the state, where males hold more substantive promotional positions than their female counterparts (Education Department of Western Australia, 2000).

It must be acknowledged that in selecting this method, concerns related to self-report methodology were introduced (Brief, Burke, George, Robinson, & Webster, 1988, in Howard, 1994; Spector, 1994). It was noteworthy, however, that the respondents appeared to be honest in outlining their professional development activities, even those who were not fully engaged in professional development activities. Most of the teachers, including those who were not involved in numerous professional development programs, were very open about their activities, or lack of activity, and provided clear (and in some cases lengthy) explanations as to the reasons for their level of participation in professional development. Collection of data was reliant on teachers’ memories, although some had records of professional development activities (school accountability records), and this was evident in some interviews where teachers stated they experienced difficulty in remembering in-house mandated professional development. These teachers explained this as the dismissal of ineffective, unmemorable professional development, which served to provide the researcher with an insight into teachers’ perceptions of mandated professional development. This may have resulted in an under-estimation of the total number of hours reported as engaged in professional development and was noted in the results.
chapter. In general, teachers were able to outline specific details about the professional development in which they participated, such as the number of hours expended, the content, the format utilised, their perception of the effectiveness and the ability of the presenter.

From the literature search, aspects which were likely to introduce bias were identified, and steps taken to overcome them. For example, interviewer training was conducted and a carefully worded interview schedule utilised (refer to Appendix B). While interviewer training was conducted it was found that some interviewers were more effective in collecting information than others. However, although this slight variability in interviewing technique was observed, all of the interviewers were effective in maintaining a rapport with teachers and encouraged them to openly discuss their professional development practices.

Another potential concern in this study was the extended period over which interviews took place. This extended data collection period was due initially to difficulties in obtaining sufficient numbers of teachers to be interviewed due to the problems encountered with principals who were taking an active “gatekeeper” role (for more details refer to the Research Design chapter p. 6.11-14 and/or Appendix F) and, subsequently, to teachers who had readily agreed, wanting to postpone the interviews until the holiday periods when they could relax and fully participate. The duration of the interview period was extended for these reasons but the differences were accounted for by noting the dates the professional development programs were reported to have occurred. During the analysis of the data, courses and programs that had been undertaken outside of the eighteen-month period captured in this study were disregarded.

While teachers’ career stages were examined in this study, and trends did appear to endorse Huberman’s (1992) findings regarding the characteristics of teachers at the various stages, caution was exercised in making sweeping generalisations from the findings, due to the low numbers of teachers within career stages (at least five teachers in each career stage). Subsequent collapsing of the first and last career categories ensured sufficient numbers of teachers in each for results to be reliable,
and the evident similarities between the findings in this study with the literature on career phases allowed some generalisations to be made.

**Implications for Further Research**

While the focus of this current study was on exploring teachers’ professional development activities, their open-ended responses provided some insights into the school culture within which they were working (for more information on teachers’ perceptions or their school culture please refer to Appendix K). Although these findings largely endorsed the literature on school culture, leadership in schools appeared to be a contentious issue with a wide ranging perspective offered by the teachers in this sample. Leadership styles and the prevailing educational culture were identified in the literature as an influencing factor on student learning (Guskey & Sparks, 1991; Hargreaves, 1992; Joyce et al., 1993; Schwahn & Spady, 1998; Moffett, 2000). Leadership style, as proposed by some teachers in this study, is worthy of further investigation (for more information regarding principals’ responses please refer to Appendix F).

In a previous study (Scott, 1997), teachers’ self-efficacy was identified as being linked with their skill mastery and the development of their teaching repertoire. In this study, teachers, particularly in the more-experienced career stages, expressed doubt about their range of instructional strategies. However, they did not appear to view themselves necessarily as poor teachers. Teachers’ levels of self-efficacy and teacher-efficacy, in relation to implementing student-centred approaches required by the Curriculum Framework would be worth further investigation.

**Conclusion**

Based upon teachers’ responses in this study it was clear that professional development was an aspect of teaching that generated considerable conjecture and emotion. In general, teachers in this study viewed participation in ongoing learning as crucial to their professionalism and were regularly engaging in professional development (Fullan, 1991). That said, they were also experiencing considerable stress from an increasing workload due to the number of policies emerging from the
employer (Gale, 1991; Smyth, 1991; 1992; West, 1991; Ball, 1993; Dinham, 1993a; Warren Little, 1993; Watkins, 1993; Ingvarson & Chadbourne, 1994; 1997; Dinham & Scott, 1997; Latham, 1998; Gale, 1999; Feiler, Heritage, & Gallimore, 2000; Holloway, 2000). There was very little systemic professional development focused on teaching and learning and what was provided was described by teachers as relatively ineffective in that it had limited impact in the classroom (Goldenberg, 1991; Novick, 1996). Culture in schools and in the wider educational situation was reported by teachers in this study as very negative. Linked with the current low morale, this negative culture was attributed to the multiple and rapid pace of reform and the perception that implementation of these reforms was ultimately their responsibility (Dinham, 1993; Hargreaves, 1994). The key recommendation from this study is for professional development to be reviewed and reformed, in line with educational literature on effective professional development processes. In order to increase effectiveness professional development must have a positive effect on the learning outcomes of students. Professional development processes should be structured to support the "reculturing" of school educational environments into productive and energised learning communities (Hargreaves & Fink, 2000, p.30; Glattorn, 1987; Sergiovanni, 1993; Brandt, 1994; Joyce & Showers, 1995; Darling-Hammond, 1998; Fullan, 1998; Birman, 2000; Middleton, 2000). Figure 10.1 is a model, developed from the findings of this study, which depicts an overview (macro level) of the structure and processes involved in the proposed reform of professional development to ensure a more effective systemic approach to professional development in large centralised state systems of education. Figure 10.2 displays the proposed structure and processes involved in building teaching and learning focused "learning communities" in schools (micro level).
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APPENDIX A

Glossary of Terms

Organisations:

Department of Education, Training and Youth Affairs (DETYA)
In 2002 changed name to Commonwealth Department of Education, Science and Training (DEST) – a Federal Governmental Department that monitor quality assurance and determine policy and in post compulsory education and training across Australia.


Education Department of Western Australia (EDWA)
In 2001 changed name to Department of Education - is the largest employer of teachers in Western Australia and is the central decision-making department that controls the public education system in Western Australia. It is also the source of educational policy.

http://www.eddept.wa.edu.au/

District Office (DO) – are an intermediate step in the governance hierarchy within EDWA. It is self-managing but is accountable to central/head office. Responsibilities of DO include: Financial management and advice, student services (psychology services), risk management and advice, and curriculum services (including professional development). The state is divided into seven districts under the control of an individual DO.

Western Australian Curriculum Council (WACC) – are a quality assurance body. They monitor standards and practices in all schools within Western Australia. They are independent of the Government and frequently act in an advisory capacity to both Government, Independent, Catholic school authorities and other interested parties.

http://www.curriculum.wa.edu.au/
Technical and Further Education (TAFE) – post compulsory technical education and training institution. They provide education/training for the trades and non-professional job employment arena. They are frequently involved in the VET areas of education within the secondary school system and provide an educational link to tertiary education.

http://www.tafe.wa.edu.au/

EDWA Policies

The policies that are to be implemented in schools related to teaching and the management of schools and staff.

http://www.eddept.wa.edu.au/AdPolicy.htm

These policies include the following:

Curriculum Framework (CF) Legislation – includes the Curriculum Framework document formulated by the Western Australian Curriculum Council in collaboration with numerous advisory bodies and stakeholders. Curriculum Framework documents the exiting outcomes that students are to achieve in order to equip them for life after graduating from school. The Curriculum Framework document specified 13 overarching outcomes and a set of 5 key values. It is the first curriculum initiative to be legislated in Western Australia.

Student Outcome Statements (SOS) – Are a set of documents formulated by the Western Australian Curriculum Council that ‘describe what students typically are able to do as a consequence of a program of planned learning activities’ (Willis & Kissane, 1995, p.5). The Student Outcome Statements developed in Western Australia by the Curriculum Council are indicators of the key knowledge, attitudes, and values that students should understand, be able to do and/or value by the conclusion of their school life within the state education system. They are set up according to Learning Areas and have accompanying
work sample documents and other related guides designed to facilitate implementation.

**Curriculum Improvement Program** – encompasses the Curriculum Framework, Student Outcome Statements and the Students’ at Educational Risk policy initiatives.

**Learning Technologies (LT) Policy** – a policy emerging from the *Plan for Government School Education 1998-2000* report which resulted in the prioritising of learning technologies within the public education system. An investment of ‘$80 million funding over the next four years ... to increase the integration of technology into teaching and learning programs in schools’ was pledged by the Government (Education Department of Western Australia, 2000c, p.1). The focus was to increase the student-computer ratio, school networks, provision of software and Internet capacity of schools.

**Managing Student Behaviour (MSB)** – a broad term used to describe policies related to the management and discipline of students within the school. It applies to both class and whole school levels.

**Performance Management (PM)** – was a policy introduced into Western Australian schools in 1996-7, which was designed to ‘focus on the growth and development of all staff’ (Education Department of Western Australia, p.5). It is a compulsory process whereby staff ‘reflect upon their current work practices, articulate their work-related goals, access constructive feedback which focuses on improvement, link their personal performance goals with those of the organisation ... and demonstrate their commitment to performance improvement’ (p.5). Staff are performance managed by a superordinate.

**Students at Educational Risk (SAER)** – a policy developed in response to poor literacy and numeracy in school leavers. It is an aspect of the CIP. The policy outlines processes that assist
in identifying these students and funding that is available for specific specialised initiatives that support them in their schooling.

**Aboriginal Education** – a policy initiative designed to increase multicultural awareness and tolerance for the indigenous Australian population. It included presentations by and discussions between Aboriginal leaders and teachers.

**Risk Management (RM)** – a policy developed in response to concerns with situations and incidents that may result in danger to teachers and students within public education schools. Schools (preferably with staff consultation) were required to develop a comprehensive series of contingency plans for any foreseeable risk situation.

**Devolution** – the supposed locus of control and decision-making shifting from a centrally controlled to a site-based (school) management mode (Robertson, 1993). Community participation is purportedly welcomed in this new model.

**Local Area Planning (LAP)** – likened to 'site-based management' in the literature (Sergiovanni, 1993, p.5). It involves increased decision-making capacity to Principals in matters of staffing and use of funding within their school. It is a key aspect of the Governmental trend of devolution.

**(Local) Merit Selection** – decisions related to employment of staff (teachers and/or support personnel) determined at the school level. Staff are selected according to application and interview process as opposed to previous systems based upon transfer from one school to another managed centrally.

**Corporate Loyalty** – a policy recently introduced that indicated that staff were required to demonstrate loyalty to the organisation in all aspects. This included removal of teachers’ rights to critique aspects of educational policy and practices in a public forum. Infringement may result in punitive action.
Copies of this policy are not readily available (researcher unable to access).

**Middle Schooling (MS)** – Is not strictly a government policy, rather interest was generated from *The Ministerial Committee on Middle Schooling* (1999) report released in 1999. ‘A middle school is a discrete organisational structure designed for the education of young adolescents, including students from both the upper primary and the lower secondary years’ (*Ministerial Committee on Middle Schooling*, 1999, p.11). Some schools while not adopting this school structure have investigated middle schooling philosophies that relate to a more pastoral caring model of teaching for students in lower school (years 8-10).

**Information Technology (IT)** – Information Technology includes hardware, software, networks, teaching specialisation and responsibilities related to the functioning and maintenance of these resources within schools.

**Vocational Education and Training (VET)** – an initiative promoted by Department of Education Training and Youth Affairs (DETYA) that enables students in the post compulsory years of schooling to undertake specific courses that provide them with workplace skills and training opportunities. These programs enable students to receive advanced standing in TAFE courses.

**Teaching promotional position terms:**

**Head of Department (HOD)** – a position of responsibility for curriculum leadership, management of staff and resources. Level 3 pay scale. May be substantive or ‘acting – temporary’.

**Teacher in Charge (TIC)** - a position of responsibility for curriculum leadership, management of staff and resources. Is of a temporary duration. Usually a special responsibilities allowance (SRA) accompanies this status.
Special Responsibility Allowance (SRA) – an increment in salary (~$1000/year) for undertaking additional duties/responsibilities within the school.

Teacher status:

Permanent - is a secure non-end dated teaching position. This status is frequently achieved as a result of a period of “rural service” whereby a temporary teacher undertakes teaching in a rural school. This status ensures the employer guarantees a teaching position each year.

Temporary - is a non-secure end dated teaching position. It is generally for a term of a year and reemployment is dependent on a satisfactory performance appraisal and position availability.

Learning Area (LA) - A cluster of subject specialisations generally but not always according to the categorisation in the Curriculum Framework Document (eg., Technology and Enterprise – Industrial Arts, Home Economics, and Information Technology/Computing).

First Steps & Stepping-Out PD Programs – a highly effective Government professional development initiative designed to increase teachers’ skill in teaching literacy.

Outcomes-based Education (OBE) - involves designing curriculum down from where you want to end up and is founded on three basic principles:

➢ All students can learn and succeed (not necessarily at the same time)
➢ Success breeds success
➢ Schools control the conditions of success

(Spady & Marshall, 1991, p.67)
Career Phase/Stage - a period of years since commencing teaching. Huberman (1992) has developed categories of career phases:
1-3 Years of Experience - characterised by ‘Survival’ and ‘Discovery’
4-6 Years Experience - Stabilization
7-18 Years Experience characterised by Experimentation /Activism and/or Taking Stock: Self-Doubt
19-30 Years Experience – Serenity and/or Conservatism, and
31-40 Years Experience - Disengagement either serene or bitter

Tertiary Entrance Examination (TEE) – the final examination for post compulsory students in Western Australia. Students’ results are ranked and this ranking determines their success or failure to enter university.

Post Compulsory - includes the final two-years of secondary schooling, namely, Years 11 and 12. These years are non-compulsory, in that, students are able to leave school at years 10 to obtain work or enter TAFE.

Preservice Education - the teaching education received within the university situation particularly used in teacher education.

Socio-economic Status – is the ranking of a school (locality) based upon a number of factors eg., average income earned, literacy level of parents, number of single parents within the locality etc.

Languages Other Than English (LOTE) – indicates the teaching of languages other than English (eg., Indonesian, Chinese, Japanese etc). The teaching of ‘foreign’ languages is compulsory in all schools in Western Australia.

Software:
SPSS a statistical analysis package
EndNote a bibliographical cross-referencing database for managing referencing.

Transfer the ability of an individual to learn something new, either a skill or knowledge; or when practising one particular skill facilitates the learning of a similar new skill (Joyce, Weil & Showers, 1992).

Horizontal Transfer the initial transfer stage where the learner uses the skill in the ‘real’ setting exactly as it was learned in the workshop environment with no modifications to suit the changing classroom conditions.

Vertical transfer a stage progressing from horizontal transfer where the learner experiences comfort and displays mastery over the skill and is able to make appropriate modifications to the model without losing the theoretical thrust.

Executive control the final stage where the learner has continued practising and has sufficient control over the repertoire of new strategies that he/she is able to make decisions regarding how and when to apply the strategy taking into account their students’ needs, the appropriateness of the model to the curriculum, the objectives to be achieved and management issues (Joyce, Weil & Showers, 1992).

Teaching repertoire refers to a range of complex teaching strategies mastered by a teacher eg., the Models of Teaching, cooperative learning.

Inductive processes where an individual collects data on a particular subject, finds out what is common in all the cases and forms a general principle to explain the phenomenon being examined.
Models of teaching are more than specific methods or strategies. Each model is an overall plan, or pattern, for helping students to learn specific kinds of knowledge, attitudes, or skills’ (Arends 1998; 2000, p.24). They have a theoretical background or philosophy and a series of steps in order to assist students to achieve a set outcome or goal. A comprehensive range of models is outlined in Joyce, Weil and Calhoun’s text Models of Teaching (2000).

Peer coaching an approach utilised by Joyce & Showers (1995) where teachers are teamed together to assist each other in the development of complex strategies by observation of each other and collaboratively developing lesson materials.

Reflective teaching to think on or examine a particular occasion or performance in order to refine the process or performance Common aspects involved in reflection in this study may include knowledge base/curriculum content, skills development, nurturant/social effects, student needs and developmental level, teacher own performance of strategies, social context of teaching.

Four varieties of reflective practice from the literature (Zeichner & Tabachnick, cited Zeichner, 1991). For further detail see Chapter 2 – Literature Review:

- an Academic Tradition
- a Social Efficiency version
- a Developmentalist version
- a Social Reconstructionist version

Self-efficacy the belief that the individual can achieve what they set out to do effectively and efficiently (the belief in one’s own ability). In this study, self efficacy relates to a teacher’s ability to visualise a course of action designed to produce a particular outcome and believe in his/her ability to carry
out the necessary processes for that outcome to be achieved.

**Student-centered teaching**

a teaching approach where the teacher is a facilitator of knowledge rather than the source. Student to student interaction is encouraged, making the lesson a three way dialogue rather than a one sided discourse.

**Teacher-centered teaching**

a teaching approach where the interaction is mainly teacher to student, and to a lesser extent, vice versa where students are taught through direct instruction and questioning techniques.

**Professional Development (PD)** - “any planned activity that provides teachers with an opportunity for growth in knowledge, skills and attitudes leading to improved teaching practice and enhanced student learning” (Alberta Teachers’ Association’s, 2001, p.2).

**Types of professional development:**

**Job-embedded mode** - included in-school provided professional development days, meetings related directly to school duties that are held within the school day

**Job-related mode** - included meetings that relate to teaching or other school duties that are held out-of-school hours eg., Curriculum Council Meetings, district office provided workshops, staff meetings, collaboration meetings etc

**Credential-Orientated mode** - included university or other recognised courses that contribute to further qualifications eg., Bachelor of Education (conversion course – from initial teaching certificate qualification to degree level), MCP – Microsoft Certified Professional (Information Technology Industry Approved qualification), Category II Train the
Trainer (Industry [Vocational Education and Training] recognised teaching qualification)

**Professional Organisation-related mode** - included workshops, meetings, conferences provided by subject specific professional organizations eg., STAWA – Science Teachers Association of Western Australia, MAWA – Mathematics Teachers Association of Western Australia etc

**Self-directed mode** - included educationally related work, visits to sites of educational interest, or courses undertaken during sabbatical or other forms of leave from teaching, self initiated action research (except if the research was for a qualification)

**Professional Reading mode** - included time spent browsing the Internet for likely sites of educational interest for both personal knowledge and classroom use, perusing catalogues for resource material, listening and selecting music to be used in teaching, in addition to the traditional conceptualisations of reading texts and other forms of printed materials for increase in subject-specific and pedagogical knowledge.

**HECS tax** - Higher Education Contribution Scheme is a tax imposed by the Federal Government on all university students in Australia, whereby students pay a fee per unit for all units in a degree. The amount of the fee varies according to the discipline area and the level of the unit (1st, 2nd or 3rd year).
APPENDIX B

Interviewer code: 

CURTIN UNIVERSITY OF TECHNOLOGY
FACULTY OF EDUCATION

Doctor of Philosophy

SURVEY OF SECONDARY TEACHERS
(RURAL & METRO - SENIOR HIGH SCHOOLS)

A STUDY OF TEACHERS’ PERSPECTIVES OF PROFESSIONAL DEVELOPMENT

RESEARCHER NAME :
SHELLEY SCOTT

SUPERVISOR :
DR ROB BAKER

DATE :
March 1999
This is a study focusing on researching teachers' perspectives of professional development in Western Australia. We want to provide teachers in our study with the opportunity to reflect on their involvement in PD over the past 12 months and express how they feel about the experience.

I will remind you that your answers are completely confidential and none of your comments will be traceable to you in any way.

I would like to use a speaker phone to enable me to take notes during the interview would like to record it on tape to speed up the notetaking procedure. The tape will simply have a number to identify who was interviewed and will be destroyed after the data has been analysed. Is that OK with you?

Yes  X  No  

PD, in this study, is defined as activities conducted both inside and outside of the school which promote the ongoing professional growth of a teacher. Some examples of the types of activities are in-school PD, moderation meetings, activities related to professional associations, district office provided workshops, content or skills based courses & seminars, university/TAFE/voc. ed accreditation courses, professional reading, self improvement during leave periods, and excursions visits to sites of educational value.
DEMOGRAPHICS.

1. Interviewer: ________________________________________________

2. Date of Interview: __________________________________________

3. Tape No: ___________________________________________________

4. Name of Respondent: ________________________________

5. Gender: Male [ ] Female [ ]

6. Respondent Contact N°: _______________________________________

7. Name of Current School: _______________________________________

8. For the purpose of the demographics of the sample, I wonder if you would mind putting yourself into one of the following age ranges?

   20-29 Years [ ]
   30-39 [ ]
   40-49 [ ]
   50-59 [ ]
   Other __________________________

8. How many years have you been teaching including this year?

   _______________________________________

   (this is researcher's coding – will be done after interview)

   0-1 Year(s) [ ] “within the first year of teaching”
   2-3 [ ] “survival and discovery”
   4-6 [ ] “stabilization”
   7-18 [ ] “experimentation/activism” “stock-taking”
   19-30 [ ] “serenity” “conservatism”
   30-onwards [ ] “disengagement”

9. Are you a Permanent or Temporary teacher?

   Permanent [ ] Temporary [ ]

   If “Permanent” when did you gain permanency? ________________________
10. COUNTRY □ METROPOLITAN □

*If 'Country' then go to Q 11.*

*If 'Metropolitan' then go to Q 13.*

11. How long have you been teaching in the country (including all country posts)? ____________

- 0-1 Years □ (within the first year of teaching)
- 2-5 Years □
- 6-10 □
- 11 – 15 □ *(Researcher’s coding only)*
- 16–21 □
- 21 □

12. Have you ever taught in the metropolitan area? Yes □ No □

*If "Yes" ...how long ago? (Skip to Q 14)*

13. Have you ever taught in the ‘Country’? Yes □ No □

*If "Yes" ...how long ago?*

14. What is your current teaching status?

- Full time □
- Part time □
  - 0.2 □
  - 0.3 □
  - 0.4 □
  - 0.5 □
  - 0.6 □
  - 0.7 □
  - 0.8 □
  - 0.9 □

15. What position do you hold in the school?
16. What is your major and minor (in relation to your qualifications):

Major: ___________________ Minor: ___________________

17. What subjects are you currently teaching?

____________________________________________________________________________________
____________________________________________________________________________________
____________________________________________________________________________________
____________________________________________________________________________________
____________________________________________________________________________________

18. Are the subjects you are teaching this year, ones you have taught previously?

Yes [ ] No [ ]

19. Do any of them represent new or increased preparation?

Yes [ ] No [ ]

If “Yes” … how / why?

____________________________________________________________________________________

20. Casting your mind back over 1998 up until now, what PD have you attended or participated in including the school provided PD days?

(Be prepared to wait and prompt and draw out this info.)
(Get info of minimum of 3 mandated PDs and 3 free choice PDs)

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<th>PD option</th>
<th>Content of PD (what was it on?)</th>
<th>Process (how it was conducted?)</th>
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| PD option | Content of PD *(what was it on?)* | Process *(how it was conducted?)*  
|-----------|----------------------------------|-----------------------------------
|           |                                  | *Eg. guest speaker, hands-on, etc.* |
Q 20 contd.  *Examples of PD modes, use as a prompt if necessary*

*Prompt example:  what about moderation meetings, were you required to attend any during '98 or this year?*

☐ **Job embedded Mode** eg. School committee work, in-house PD, school organised PD etc

☐ **Job related Mode** eg. School district workshops, Curriculum Council meetings, moderation meetings, excursions visits to sites of educational value etc.

☐ **Credential orientated Mode** eg. University certification courses, industry/TAFE/Voc. Ed accreditation courses, computer courses (for IT teachers)

☐ **Professional organisation Mode** eg. Workshops, conferences, forums, guest speakers, meetings, etc.

☐ **Self-directed Modes** eg. Sabbatical leaves, working during long service leave, etc.

☐ **Professional reading - for what purpose?** eg. Accreditation, job-related, prof. Mode?

☐ **Other ... Please specify**

*In this section we will be examining some of your PD in more depth and may appear repetitive.*
Repeat Q 21 - 28 for all PD respondents reported doing in Q 20.

21. You stated that you did __________________________ how many hours were involved in that?
   (You need to prompt/remind them of each PD sessions they mentioned in Q 20)
   __________________________
   __________________________
   __________________________

22. Was (the PD mentioned above) your own choice or was it mandated by the school admin. for example, or district office/ or EDWA/ or Curriculum council etc?
   Own choice □ mandated/required by the system □

   If 'mandated/required by the system' ask Q 23.
   If 'own choice' ask Q 24.

23. In your opinion, why were you required to do this/these PD program(s)?  Skip to Q 25
   __________________________
   __________________________
   __________________________
24. Why did you choose it?

25. How would you rate the effectiveness of that PD on a scale of 1-10 with 1 being ineffective and 10 being highly effective?

<table>
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<th>Highly effective</th>
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*If rated at “1-5” then go to Q 28

*If rated at “6-10” then continue with Q 26*
26. Why did you rate it at ________? *(6-10 classified as effective)*

27. How did you hear about this program?
*(Ring the options provided and add in any details that are not listed)*
(eg, school matters, district office, flier, Prof. organisation info, from colleagues etc)

28. Why did you rate it at ________? *(ineffective 1-5)*
29. You stated that you are a ...(eg., classroom teacher/HOD/year coordinator/head of a program etc). Are your PD needs directly related to your position?

Yes □ No □ Mixed (one position/aspect does) □

If "Yes" or "Mixed"...in what way?

________________________________________________________________________
________________________________________________________________________
________________________________________________________________________

30. Are your PD needs directly related to your content area?

Yes □ No □ Mixed □

If "Yes" or "Mixed"... in what way?

________________________________________________________________________
________________________________________________________________________
________________________________________________________________________

31. If "Temporary" Do you feel an obligation to seek PD as a result of your temporary status? Why?

________________________________________________________________________
________________________________________________________________________
________________________________________________________________________

32. Did your school choose the option to conduct extra PD out of school hours in lieu of the three days at the conclusion of term 4 last year?

Yes □ No □ Don’t Know/Unsure □ Mixed/Dept decision □

(1st year out / long service leave?)

If "No" ... why not? ....... Move to Q 38.

________________________________________________________________________
________________________________________________________________________
________________________________________________________________________

If "YES" ... continue with Q 33.
33. How many hours you were required to carry out out-of-school time?

34. Were the ‘required’ hours carried out?
   Yes □        No □        Don’t Know (maybe what other depts did) □
   If “No” … why not?

35. What was done in these sessions? *(this info may have been collected in the “in-detail” section. If so, then do not repeat)*

36. Was it worthwhile? *(the process of doing PD instead of the last 3 days of school)*
   Yes □        No □        Mixed □
   Please explain further.

37. How was it decided what PD to choose? *(who made the decision what to choose)*

38. Overall what was the most effective PD, that arranged by yourself or that mandated/required by the system? Why?
   *(the answer may be a mix)*
   System mandated □        Personally organised □        can’t decide/mixed □
39. Did you have input into the school decisions regarding the choice of PD for in-house PD sessions?  
Yes ☐  No ☐

If 'Yes' how, through what process?

__________________________________________________________________________________________________________

__________________________________________________________________________________________________________

If 'No' how do you feel about having no input?

__________________________________________________________________________________________________________

__________________________________________________________________________________________________________

40. You stated you have been teaching ________ years. Has the time you spend involved in PD programs each year increased or decreased since you started teaching, taking 1998 as the latest measure?  
Increased ☐  Decreased ☐  Approximately the same ☐

If increased or decreased, why?

__________________________________________________________________________________________________________

__________________________________________________________________________________________________________

__________________________________________________________________________________________________________

__________________________________________________________________________________________________________

41. Have your choices of PD changed over the last few years?  
Yes ☐  No ☐

If 'Yes' how? and why?

__________________________________________________________________________________________________________

__________________________________________________________________________________________________________

__________________________________________________________________________________________________________
42. What PD do you feel you require in the immediate future, perhaps this year? and why?

________________________________________________________________________
________________________________________________________________________
________________________________________________________________________

43. Do you know that you have a PD allowance from the EDWA?

Yes ☐ No ☐

44. Do you know what your personal PD allowance is for the year?
(a dollar amount per annum if known)

________________________________________________________________________
________________________________________________________________________
________________________________________________________________________

45. Is this sufficient to meet your needs? Please explain.

Yes ☐ No ☐ Unsure ☐

________________________________________________________________________
________________________________________________________________________
________________________________________________________________________

46. Have you personally financed your own PD in 1998 including this year?

Yes ☐ No ☐

If ‘yes’ would you mind disclosing approximately how much have you paid out for PD?
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________

47. How do you feel about financially contributing to your professional growth?
48. Have you been involved in organising/running or facilitating any PD for your colleagues?
   
   Yes □  No □

   *If ‘Yes’ what type?*
   
   *When?  (Use these as probes)*
   

   *If this has already been outlined in the in-depth section ensure that you cover “Why?”*

   ____________________________
   ____________________________
   ____________________________
   ____________________________

   **City/metro teachers**  
   **skip to Q. 52**

   **For country teachers only:**

   49. You have been teaching in the country for [ ] years. Do you feel there is any difference in the PD available in the country?

   Yes □   No □   Unsure □

   *If ‘Yes’ in what way?*

   ____________________________
   ____________________________
   ____________________________
   ____________________________

   50. Is there a difference in the quality of PD offered in the country?

   Yes □   No □   Unsure □

   *If ‘Yes’ in what way?*

   ____________________________
   ____________________________
   ____________________________
   ____________________________
51. Are there other factors affecting PD for teachers in the rural situation?  

Yes ☐  No ☐

If 'Yes' what are they?

________________________________________________________________________

________________________________________________________________________

________________________________________________________________________

52. Are there any other comments you would like to make regarding PD?

________________________________________________________________________

________________________________________________________________________

________________________________________________________________________

That is the conclusion of the questions. I would like to say how much I appreciate your participation in this study. It wouldn’t have been possible without your assistance.

I would like to stress again that your answers are completely confidential and none of your comments will be traceable to you in any way.

Shelley (I) will be preparing a summary of the findings at the conclusion of this study. Would you like a copy to be sent to you?  

Yes ☐  No ☐

We will be conducting some in-depth interviews later to follow up on interesting issues raised in these interviews. Would you be prepared to be involved in a second interview a little later on?  

Yes ☐  No ☐

If 'yes' that’s great. I look forward to possibly talking to you at a later time.

If 'no' no problem. Thanks again for being involved and I hope you have an enjoyable year this year.
APPENDIX C

Mr Metro Principal
Principal
Metro Senior High School

Dear Mr Principal

I am a PhD student in the Faculty of Education at Curtin University of Technology working with Associate Professor Dr Robert G. Baker, investigating professional development in the Western Australian Government school system.

The study is focusing on researching teachers’ perspectives of professional development in Western Australia. We want to provide teachers (both country and metropolitan) in our study with the opportunity to reflect on their involvement in PD over the past 18 months and express how they feel about the experience.

I am writing to request your assistance and support in this study. I would appreciate the opportunity to briefly outline the aims of our study to you and your teaching staff (perhaps 5 mins at a recess or lunch period) and invite your participation. Should you grant permission for your staff to be part of this study be assured that their participation will not involve any intrusion or disruption to the operation of your school. Their responses will be totally confidential and anonymity assured.

Participating teachers will be interviewed briefly (approx 45 mins). Both rural and metropolitan schools will be invited to participate in this study. The schools have been randomly selected from the list of public senior high schools. The interviews will be conducted by a team of four trained interviewers with teaching backgrounds.

At the conclusion of this study, I will be delighted to provide both you and your staff with a report including a summary of the major findings and recommendations arising from the study. A similar report will also be forwarded to the relevant department in EDWA and the Secondary Principals Association. You may find this report useful in your school’s strategic planning process and provide your teachers with an insight into the perceptions of their colleagues around the state, regarding professional development.

I will contact you this week, and look forward to talking to you in person. If you have any concerns or particular questions before then please don’t hesitate to contact either myself or Assoc. Professor Baker at the following contact numbers:

Shelley Scott                     xxxxxxx (wk)  xxxxxxx (hm)
Associate Professor Rob. Baker    xxxxxxx (wk)

Yours sincerely
APPENDIX D

Mr Rural Principal
Principal
Rural Senior High School

Dear Mr Principal

Shelley is a PhD student in the Faculty of Education at Curtin University of Technology working with Associate Professor Doctor Robert G. Baker and myself, investigating professional development in the Western Australian Government school system.

The study is focusing on researching teachers’ perspectives of professional development in Western Australia. We want to provide teachers (both country and metropolitan) in our study with the opportunity to reflect on their involvement in PD over the past 18 months and express how they feel about the experience.

I am writing to request your assistance and support in this study. Should you grant permission for your staff to be part of this study be assured that their participation will not involve any intrusion or disruption to the operation of your school. Their responses will be totally confidential and anonymity assured. Shelley would appreciate the opportunity to make personal contact with your members of teaching staff to invite their participation. To facilitate our telephone contact with your staff we wondered if it would be possible to obtain an up-to-date staff list for your school. If any staff are immediately interested they can contact Shelley directly at the number below, through email on s.scott@educ.curtin.edu.au or by mail at the letterhead address.

Participating teachers will be interviewed briefly (approx 45 mins). Rural and metropolitan schools will be invited to participate. The schools have been randomly selected from the list of public senior high schools. The interviews will be conducted by a team of four trained interviewers with teaching backgrounds.

At the conclusion of this study Shelley will be delighted to provide both you and your staff with a report including a summary of the major findings and recommendations arising from the study. A similar report will also be forwarded to the relevant department in EDWA and the Secondary Principals Association. You may find this report useful in your school’s strategic planning process and provide your teachers with an insight into the perceptions of their colleagues around the state, regarding professional development.

Shelley will contact you this week, and is looking forward to talking to you in person. If you have any concerns or particular questions before then please don’t hesitate to contact either Shelley or Assoc. Professor Baker at the following contact numbers:

Shelley Scott
Associate Professor Rob. Baker

xxxxxxxx (wk) xxxxxxxxx (hm)
xxxxxxx (wk)

Yours sincerely
Dear Colleague

Would you like to have your say about professional development? Are you satisfied with the choice available to you? What do you think about the quality of professional development you have undertaken recently? Are there any issues you think should be aired about professional development?

Shelley Scott is undertaking a study on professional development and is inviting you to have your say about this topic. Shelley will be conducting telephone interviews with interested teachers at a time that is convenient to them. The results of this study will be formulated into a report that will be made available to the participants, EDWA, the Principals' Association and professional associations.

If you would like to be involved please contact Shelley on:

XXXXXXXXX (hm)
XXXXXXXXXX (wk)

*Anonymity and Confidentiality is assured*
Principals’ Support of Research

Nine of thirty-two principals contacted were interested and enthusiastic about the study. Two were overtly hostile and emphasised their ‘Gatekeeper’ role, and while most principals did not attempt to block entrée into the school neither did they lend support or facilitate contact with teachers. They did appear disinterested and indecisive, referring the introductory letter to senior management teams or other administrative staff for consideration, or simply did not return the researcher’s phone calls. Six principals refused to allow the researcher to contact their teachers at school.

Almost all of the interested and enthusiastic group of principals (except one) were principals in the metropolitan area. One spoke at length about the importance of professional development and his/her interest in teachers’ perspectives related to ongoing learning. Another expressed considerable interest as he/she was also undertaking postgraduate studies and was willing to assist, being fully aware of the difficulties of conducting educational research. Two principals immediately arranged a time for the researcher to address their staff. Most of these principals could not see a problem with supplying teachers’ names to the researcher stating that many schools were putting this information on the web anyway and it had been stressed by the researcher that the initial contact with teachers would be at school. The researcher stated that it would be the teachers’ choice to provide their home phone numbers for scheduled interview appointments.

Two principals were blatantly antagonistic to the study. The researcher was informed that teachers did not have time to get involved in ‘research’. The other Principal demonstrated considerable negativity stating that the all research must have endorsement from the employer and not doing so had ‘contravened the regulations’. No direct answer was forthcoming when specifics were sought to clarify to which regulations he/she was referring. The Principal subsequently became evasive and
defensive remarking that the researcher ‘had no right to contact teachers directly’. This Principal displayed a patronising and contumelious attitude toward teachers and the researcher.

An interested principal provided an insight into principals’ perspectives. He enquired about his colleagues’ reactions to the study and reflected that ‘there was a lot of uncertainty in the system at the present’ that may have accounted for principals’ nervousness related to current research with teachers. He/she stated ‘what we need is a strong Director General with good people skills to get things back on track’, that the ‘politics is not healthy at the moment, and that there is a need to instil confidence in staff in the system’. In discussing professional development he/she felt that ‘professional development was a “boutique term” at present, and there is so much available for administration staff that if they did do a lot they would be out of the school all the time’. Another issue discussed was that ‘[principals] needed to be aware of what professional development was going to be useful to their [principals’] careers too’. When queried if this was similar for general teaching staff he/she stated that he/she ‘wasn’t sure’ but that issues of relief and responsibilities to students would prevent many teachers from availing themselves of more professional development.

Curiously, there were more negative responses from female principals than male. Eight of the nine enthusiastic and positive principals were male. Female principals more frequently voiced concerns regarding how participating in this study would be construed by superiors in EDWA. They appeared to be extremely nervous of enabling or participating in any project without endorsement from the Minister of Education or the Director General of Education.

**Leadership Styles**

Examination of teachers’ reports of their school administrators’ leadership styles in this current study brought Sergiovanni’s (1993, p.19) discussion of schools as communities into focus. He discussed schools being ‘recultured as communities’ whereby members developed a sense of ‘we’ from a collection of ‘I’s’, ‘relationships are both close and informal’, there were shared values and ideas that served to
connect people, and leaders who made an effort to reduce the status difference
(Sergiovanni, 1993, p.7). Principals, who were reported as demonstrating
Sergiovanni’s vision of leadership, were perceived favourably by the teachers in this
current study. In contrast, negative leadership styles resulted increased feelings of
isolation in teachers, sometimes causing further withdrawal from collaborative
activities, including professional development particularly mandated professional
development.
Coding Categories of Data

Purpose of Participation
The Joyce and associates categories identified in the Gall report (Gall et al., 1985) were as follows and include examples from the Western Australian context to assist in clarify meaning:

**Job-embedded mode** - included in-school provided professional development (PD) days, meetings related directly to school duties that were held within the school day

**Job-related mode** - included meetings that related to teaching or other school duties that were held out-of-school- hours eg., Curriculum Council Meetings, district office provided workshops, staff meetings, collaboration meetings etc

**Credential-orientated mode** - included university or other recognised courses that contributed to further qualifications eg., Bachelor of Education (conversion course – from initial teaching certificate qualification to degree level), MCP – Microsoft Certified Professional (Information Technology Industry Approved qualification), Category II Train the Trainer (Industry [Vocational Education and Training] recognised teaching qualification)

**Professional Association-related mode** – included workshops, meetings, conferences provided by subject specific professional organizations eg., STAWA – Science Teachers Association of Western Australia, MAWA – Mathematics Teachers Association of Western Australia etc

**Self-directed mode** - included educationally related work, visits to sites of educational interest, or courses undertaken during sabbatical or other forms of leave from teaching, self initiated action research (except if the research was for a qualification)
Teachers’ - Rationale for Choice

From the qualitative data the following codes were identified as encompassing the teachers’ criteria for selecting professional development. The category codes were set up as follows:

Teacher/student Interest - the PD sounded interesting or was likely to have some interest to his/her students or would help his/her to hold the students’ interest (eg., the use of particular equipment in forecasting weather patterns, anecdotes or case studies in ecology, etc).

Teacher Knowledge - the PD was likely to be directly relevant to his/her teaching by increasing his/her content knowledge or general knowledge about the education system within which they were working (ie., professional organisations [eg., English Teachers Association] provided conferences in which information is delivered related to specific subjects [for example, seminars on incorporating intertextuality within syllabi]; and District Office workshops on innovations in the subject or changes to syllabi, information on changes to staffing formulas and local area planning implementation, [eg., how to write curriculum vitae for transfer or promotion etc])

Teaching Skill - the PD was likely to be directly relevant to his/her teaching by increasing his/her subject related skills (process in various subject areas eg., using a graphic calculator in science and maths, titration techniques in science, how to scan in maps and other diagrams into a computer, etc) or specific teaching skills/strategies (processes in teaching the subject eg., cooperative learning techniques, mind mapping, critical thinking, ‘Stepping-Out’ strategies etc).

Teacher Improvement - the PD was likely to be relevant to his/her position/duties by increasing his/her related knowledge or skills (eg., budgeting, performance management of staff, Vocational
Education and Training requirements (VET), Managing Student Behaviour (MSB), etc.

**Student Performance** - the PD was likely to have a direct benefit to his/her students or to help his/her to positively affect students. It may have provided the teacher with resources or the opportunity to share resources with colleagues which would positively affect students’ performance (e.g., obtaining resources or information about likely exam questions, formats, protocols, training for counselling students into subjects, self-esteem building courses for students, etc).

**Teaching Environment** - the PD was likely to have a direct benefit to his/her students or to help his/her to positively affect students by improving the teaching and learning environment. The effect could be academic or social (e.g., the opportunity to moderate their teaching, assessments, resources with colleagues in order to provide confident guidance and assistance, structuring positive learning environments, cooperative learning environments, etc).

**Personal Development** – the PD may not necessarily relate to teaching skills or subject knowledge but may develop the teacher in other ways; or may have been of benefit to the teacher in his/her personal life (e.g., first aid, writing curriculum vitae, intrapersonal or interpersonal skills training etc). Some teachers in this study did not view PD sessions as PD “that counts” if it did not directly affect or influence the teaching situation or had the prospect of personal benefit. This type of PD was frequently linked with teachers’ career advancement or opportunities to move out of teaching.

**Networking** - the PD was likely to enable them to network with colleagues. This would provide them with the opportunity to discuss and share perceptions of colleagues in content related, educational policy and procedure, and practices and opportunities in other schools. It would also allow them to share resources,
ideas/methodology for teaching, and joint planning and programming (eg., professional organisation conferences and workshops, moderation and subject meetings, faculty time on professional development days, etc)

**Career Advancement** – the PD was likely to provide the teacher with opportunities to have input into school decisions. This was particularly important to teachers who perceived there to be inequity and unethical practices occurring in their school or in the system (eg., committees or student services, staff meetings and conferences etc). Additionally, these PD programs/sessions/activities may provide the teacher with the opportunity to “be noticed” by his/her administration personnel (particularly in Local Area Planning or Merit Selection schools) and therefore may lead to career advancement (eg., volunteering for train-the-trainer courses for internet, performance management, panel training etc)

**Teachers’ – Rationales for Choice (Mandated)**

**Political Agenda** – teachers’ reported that there was a political agenda underlying the PD. They reported this reason in connection with policy related PD (eg., Curriculum Framework (CF) and Student Outcome Statements (SOS), Risk Management, Performance Management, Middle Schooling etc) and/or PD that was being required by EDWA, District Office or the School Administration (particularly PD that, in the teachers’ opinion, did not have direct benefit to classroom teaching and learning)

**Change** – teachers recognised that they were working in an environment of constant change. This reason was cited mainly for policy implementation (eg., Integrating Information Technology, CF and SOS, Local Area Planning schools etc)
Admin req'd – teachers frequently reported they were not really sure why they were required to attend certain activities/sessions except that their administration had mandated it. This was often linked with “Political Agenda” as acknowledgement of the pressures being exerted on their administration from above (eg., District Office or EDWA centrally)

Info delivery – the professional development was to inform teachers of a directive or procedure they were to implement. It also included lecture-based sessions informing them of the philosophy underpinning various policies (eg., the philosophy underpinning the CF document, Students at Educational Risk, local area planning issues, panel training procedure, etc)

Solve Problem – this was professional development that was set up to solve potential or actual problems occurring within the school. It may have also been policy-based but had implications related to the running of the school (Risk Management policy development, Managing Student Behaviour, Performance Management Training, etc)

Effectiveness

Qualities of the Presenter – (positive) eg., the presenter was knowledgeable, credible, and/or a good speaker. Presentation style was interesting, informative, enthusiastic, and/or entertaining. Included under the category of credible was whether the presenter was a practising teacher (or an expert who understood the teaching situation).

(negative) eg., the presenter lacked credibility. The presenter’s style was uninteresting, uninformative or misleading, unenthusiastic and/or boring. Presenter was antagonistic or insensitive to teachers’ working situations and conditions. Presenter was rude, argumentative and/or offensive.
(Information) eg., the information contained in the PD was irrelevant, inadequate, insufficient, or inaccurate. Expected resource material promised in the professional development was insufficient, incomplete, inaccurate or absent.

(Teacher Expectations) – the PD did not meet expectations. A variety of reasons were given in this category these included the advertising for the PD was unclear resulting in disappointment when the teacher attended; what was advertised was not actually presented or covered; the teacher already knew the information or had the required skills and therefore did not experience an increase in expertise; the expert running the session was unable to answer questions or provide further guidance.

(Non-Skill) – eg., the PD did not provide the teacher with increased skill in teaching (either generic teaching skills or content-related skills).

(Boring) eg., the session was boring. The format of the presentation was unexciting and unenthusiastic. This included formats of PD that did not vary (eg., all lecture-based, or all-discussion group format with no expert help or little guidance, etc).

(Wasted Time) – eg., the program/session was a waste of time because the information or content was considered irrelevant to the teacher’s needs, or was not well organised resulting in time not being used efficiently.
APPENDIX H

Sources of Professional Development

Employer (EDWA)
The Education Department of Western Australia (EDWA) has provided time to teachers to undertake PD within the working day. This is allocated as four in-house professional development days which are distributed throughout the year, generally one per term. Attendance on these professional development days is usually mandatory. Some of the EDWA provided PD is listed below:

- Information Delivery related to Policy implementation - Curriculum Framework (CF) and Student Outcome Statements (SOS); Integrating Information Technologies; Local Area Planning (LAP); Middle Schooling (MS); Students at Educational Risk (SAR); Risk Management (RM); Performance Management (PM).
- Faculty time for discussion, planning and developing CF, SOS and IT
- In-school committee commitments
- District Office provided professional development

Western Australian Curriculum Council
The Western Australian Curriculum Council (WACC usually referred to as the CC) acts as both a provider of PD and as a quality control/assurance authorising body. Some functions of the WACC include guidelines and guidance, resources, and quality assurance for Tertiary Entrance Examinations (TEE). It provides opportunities for teachers to moderate their class performances in the post-compulsory years (particularly for teachers with small class numbers), to network with colleagues and obtain advice regarding current and future practices. Moderation meetings are usually mandated, however, teacher attendance often depends on the school’s distance from the city, cost etc. Other CC provided workshops and meetings are ‘Personal Choice’ or ‘Obligated’ forms of PD and provide a forum for:

- Quality Assurance – moderation meetings
- Information delivery and updates on curriculum changes
• Networking with colleagues

**Professional Associations**
Considerable professional development was being provided by subject-specific professional associations. These associations were attempting to provide for teachers’ needs by offering a wide range of PD opportunities and formats. These included state conferences, workshops, meetings and discussion groups, forums for guest speakers etc. Some aspects of professional development provided by professional associations were:

• Content knowledge advancement
• Innovation in teaching practice
• Information delivery and updates on curriculum changes
• Networking with colleagues
• Professional reading (self-initiated and self-directed)

**Professional Reading**
Teachers were particularly conscious of maintaining a high level of subject expertise. In addition to their own subject knowledge teachers’ were conscious of the changing nature of resource material. Many were using this avenue of professional development to find material for use in the classroom. Information technology teachers were required through the demands of their positions to do vast amounts of professional reading particularly of manuals and catalogues.

Professional reading (self-initiated and self-directed) was perceived to be of value for:

• Content knowledge advancement
• Innovation in teaching practice
• Information delivery and updates on curriculum changes
• Specific knowledge and skills
• Credential-orientated professional development
Consultants & Commercial Providers

There were numerous commercial providers or consultants conducting a range of professional development for schools. These providers were generally conducting sessions on:

- Specific knowledge and skills
- Credential-orientated professional development (not postgraduate qualifications)
- Collegial interaction

Technology commercial providers were perceived by teachers as delivers of effective PD. Microsoft professional courses were frequently identified as effective PD for Information technology teachers, particularly those who were responsible for maintaining the systems within schools. Commercial providers were identified as professional if they provided documentation and were responsive to audience needs by being flexible in their delivery.

Discussion

Teachers were accessing a wide variety of professional development via a range of sources. Professional associations appeared to be providing a valuable service to some of their members, with many of the sample being heavily involved with their professional associations. These associations were supplying a vital need in facilitating networking between colleagues, particularly those in rural areas. While the professional associations appeared to be supplying a worthwhile service some felt the range of professional development being offered was limited and of little relevance to the current outcomes-focused changes and had withdrawn from their membership.

Education Department district offices were also offering a respectable range of professional development, networking and moderation opportunities, however, the level of expertise in the rural district offices came in for criticism, as rather limited. This had a subsequent unexpected negative effect on teacher perception of the employer.
Other avenues of professional development were commercial providers, universities, and increasingly, from colleagues with particular expertise. The quality of these activities appeared to vary considerably with some obviously providing highly effective professional development to others that were distinctly ineffective. Further studies were viewed as reasonably effective professional development and were generally undertaken to gain or increase specific knowledge or skills and/or enable career advancement within or outside the educational system. It is unfortunate that this form of professional development was not systemically promoted by the employer through the provision of incentive programs, such as significant pay increments for completion of each further qualification, to encourage more teachers to continue their education. Incentives need to be explored considering the increasing expense for teachers involved in postgraduate studies within Australian tertiary systems and the lack of study support and other promotional opportunities within the Government educational situation.
APPENDIX I

First Steps Professional Development Initiative

An excellent example of a highly successful well-structured professional development program in Western Australia was the First Steps literacy and numeracy program. In the 1990s concern over the lack of numeracy and literacy amongst school leavers resulted in the development of the ‘First Steps’ professional development initiative to be introduced into primary schools and was later modified for secondary schools. The primary program was titled ‘First Steps’ (in primary/elementary schools - years K-6) and ‘Stepping Out’ (in secondary schools - years 8-12) and was designed to provide training and resources materials to teachers, thereby enabling them to identify and assist students to increase their literacy skills (Education Department of Western Australia, 1995).

The Education Department of Western Australia (EDWA), supported by State and Commonwealth funding, produced the First Steps program in 1994. The implementation of this initiative received considerable funding focused on the professional development of teachers over a period of approximately five years.

A flaw in the program was that it was top-down driven. Participation in the program was required by EDWA. During the implementation of First Steps and Stepping Out each school was required to nominate at least one teacher who was to receive the training to become an in-school facilitator. These teacher-facilitators were trained to deliver the program. They subsequently returned to their schools and provided in-school training and classroom support to colleagues. Teacher-facilitators were provided time to support colleagues within the classroom context through planning assistance, demonstrations, and reflection on changes of practice. Every teacher in the public school system was required to undertake the First Steps or Stepping Out program and gain certification for its completion. One of the features of the program was the emphasis on ‘critical thinking’ or teaching students to think. The program was well designed and incorporated valuable resource materials that complemented the constructivist approach. The program was highly successful particularly in the primary (elementary) situation, however, it proved to be extremely expensive and did not have incorporated mechanisms for sustained professional development.
APPENDIX J

Western Australian Educational Policies

Learning Technologies Policy
In 1998 the Plan for Government School Education 1998-2000 report was published which outlined the Western Australian Government’s plan for prioritising learning technologies within the public education system. Within the report the Government pledged to invest ‘$80 million funding over the next four years ... to increase the integration of technology into teaching and learning programs in schools’ (Education Department of Western Australia, 2000c, p.1). This was primarily to increase the student to computer ratio, assist in the cabling of school networks, provide software to run the school technology systems and to increase the Internet capacity of schools. Schools were required to develop a ‘Technology Plan’ for their school in order to be considered for the allocation of funding. A resource kit was supplied to District Offices to guide the process of development of the ‘Technology Plans’.

Outcomes-based Education

Curriculum Framework
School reform frequently targets assessment as requiring change. With input from various stakeholders, frameworks of necessary criteria have been developed in many school districts in America, Canada and indeed here in Western Australia. The Western Australian Curriculum Framework (Curriculum Corporation, 1996) represented the exiting outcomes that students were to achieve in order to equip them for life after graduating from school. This framework was to be implemented over a five-year period, so that by 2004 the Curriculum Framework would be fully operational in all schools (public and private; secondary and primary) in Western Australia.

The Curriculum Framework document specified 13 overarching outcomes and a set of five key values. This framework was unique in that it was the first curriculum document to overtly focus on values education in Western Australia. These
overarching outcomes provided the basis for curriculum development. The Western
Australian Curriculum Council (WACC) proceeded to develop a more detailed series
of Outcome Statements and examples of applications, which provided a more
specific foundation for the development of programs of instruction. Professional
development was required in mandated professional development days (4 per year)
provided by the Education Department.

**Student Outcome Statements**

Emphasis in outcome-based education is on the learner demonstrating what they
know or can do. Outcomes are ‘high quality, culminating demonstrations of
significant learning in context’ (Spady, 1994, p.18), while student outcome
statements (SOS) ‘describe what students typically are able to do as a consequence of
a program of planned learning activities’ (Willis & Kissane, 1995, p.5). The student
outcome statements developed in Western Australia by the WACC are indicators of
the key knowledge, attitudes, and values that students should understand, be able to
do and/or value by the conclusion of their school life within the state education
system.

**Local Area Planning/Merit Selection**

Local Area Planning policy was essentially site-based management whereby
responsibility for decision-making was devolved to schools (usually to the principal).
Merit Selection was an aspect of Local Area Planning in that schools were able to
make decisions regarding staffing which had previously been made at a central
governance level.

**Middle Schooling**

The Ministerial Committee on Middle Schooling released its report in June 1999.
Interest in middle schooling has grown in recent years with funding becoming
available through the National Project on the Quality of Teaching and Learning,
stimulating some schools to experiment with structures intended to meet the needs of
their students more effectively. ‘A middle school is a discrete organisational
structure designed for the education of young adolescents, including students from
both the upper primary and the lower secondary years’ (Ministerial Committee on
Middle Schooling, 1999, p.11). As there has been some confusion related to the difference between middle schools and middle schooling the committee outlined the definition of middle schooling as ‘an overall style of teaching and learning based on well-founded beliefs and understandings about adolescents and their development’ (Ministerial Committee on Middle Schooling, 1999, p.12). Since the release of this report numerous schools across Western Australia have adopted a middle schooling approach in relation to their year 7-10 students, however, considerable variability exists across the state with some schools only including years 8 and 9 while others included only traditional ‘lower school’ (year 8-10).

**Performance Management**

*Performance Management* was introduced into Western Australian schools in 1996 and 1997. The purpose of the policy was to ‘focus on the growth and development of all staff’ to ensure that employees would demonstrate continued improvement which would impact on their students. The process was compulsory, with all members of staff being required to undertake the process with a superordinate line manager. Staff were to ‘reflect upon their current work practices, articulate their work-related goals, access constructive feedback which focuses on improvement, link their personal performance goals with those of the organisation ... , and demonstrate their commitment to performance improvement’ (Education Department of Western Australia, p.5). Performance management was linked with professional development. Opportunities for professional development were to be negotiated with the ‘performance manager’ or ‘line manager’. The professional development would be distributed fair and equitably and ‘within the usual constraints of the allocated professional development budget’.
Further Insights on Culture

With the average age of Western Australian secondary teachers being forty-two (Education Department of Western Australia, 2000a) it would appear timely for the issue of teacher ‘burn out’ reported in this study to be addressed by senior administrators in the Education Department of Western Australia. This situation reflects Ingvarson’s (1992, p.4) earlier observations that ‘Australian teachers were more likely to be exhausted than disengaged according to teacher stress figures’. It also has implications for the staffing of secondary schools if Dinham’s (1997, p.1) posit of the link between stress, burnout and resignations occur in this state resulting in an acute teacher shortage due to the numbers of teachers in this at-risk group (Dinham, 1993a; 1995; 1997).

The Education Department of Western Australia trialed a professional development initiative whereby teachers could trade-off the final two and a half days of the school year by undertaking 15 hours of professional development out-of-school-hours. While this was reported by teachers as a worthwhile process there did appear to be a side effect on school culture. Time was lost that previously had been utilised for organisational tasks and collaborative morale-building activities at the conclusion of the year which was reported by teachers as having a negative effect on school organisation and culture.

From teachers’ comments in this study, merit selection processes appeared to have produced a disturbing dichotomous effect on culture and collegial relations, in that, less experienced teachers returning from rural to metropolitan areas may have been favourably viewed by merit selection panel members due to their refreshing perspective and recent experience in acting promotional positions. More experienced teachers in this study also indicated that they felt discriminated against or disadvantaged due to being required by the merit selection process to limit the number cases of ‘acting’ in promotional positions and years of experience cited in
their applications. This feeling of being disadvantaged, coupled with their discomfort with a new and relatively unfamiliar process, and the perception that these younger teachers were 'jumping the queue', served to reinforce the tension existing between these two groups of teachers.

**State-wide educational culture**

A disturbing trend in teachers' reports in this current study was a negative attitude to the state-wide educational culture. This negativity was apparent in experienced teachers' comments indicating that attempts to have input into school decision-making processes were futile. They explained that this was due to the state-wide system mandating much of the 'ineffective' professional development. They also reported limited opportunities for self-determination in relation to choice of professional development. Trust was a significant issue for most teachers in this study, with many reporting that there was a reciprocal lack of trust demonstrated between teachers and higher administration (district or central office level).

Younger, less experienced teachers, likewise reported a poor perception of their employer, formulated from poor human resource management, and inefficiencies in record management, payroll matters and poor support from the employer during their induction period. Many indicated that their employer demonstrated a lack of interest and care regarding the individuals within their employ, and this tended to generate a reciprocal lack of respect for, and loyalty to, the employer. Even teachers who described working within a more positive school culture, expressed concern for the pressures placed upon their school's administrators from higher levels of administration in the education system hierarchy.