

**Science and Mathematics Education Centre**

**Dissonance Between Teachers' Worldviews and Their Roles and  
Responsibilities as Teachers: A Case Study**

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## **Abstract**

The purpose of this study was to investigate the ways in which teachers' prevailing worldviews interacted with their work environment, based on an understanding of teachers' beliefs and value systems from a worldview perspective. The worldview perspective was chosen because it provided a holistic framework for the understanding of teachers' beliefs and value structures and it also envisaged their potential to change especially in terms of the reconciling of teacher personal beliefs with the actual reality of teaching that are often underlying causal factors associated with stress. The thesis of the study centred on the proposition that through identifying teachers who were more likely to suffer stress in their work environments, schools could identify those teachers that required support.

Findings from the study suggest that worldviews of teachers affect all aspects of their lives. Teachers who share similar worldviews have similar beliefs regarding educational issues. However, teaching is influenced by experience and context. When teachers' worldviews are in conflict with their experiences in teaching they often are shown to feel stress and frustration. However, whilst a situation may be perceived to be stressful by one individual, another may interpret it as harmless. It is therefore the mediating aspect of cognitive appraisal that will ultimately determine whether the outcome is experienced as stress. There seems to be no single element in isolation that is a causal factor in the perception of the concept known as stress. Rather, the researcher argues, based on the study outcomes, that it is the interplay between environmental stimuli, the cognitive appraisal through worldview, and the individual and supportive resources, that combine to produce a stress transaction that is perceived as stressful or not stressful.

## **Declaration of Originality**

To the best of my knowledge and belief this thesis contains no material previously published by any other person except where due acknowledgement has been made. This thesis contains no material, which has been accepted for the award of any other degree or diploma in any university.

Signature.....

Philip Wayne Bentley

Date.....

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# CHAPTER 1

## INTRODUCTION

### 1.0 Background

There is considerable evidence to support the assertion that teaching is a very stressful occupation (Borg 1990; Borg, Riding et al., 1991; Beer 1992; Travers & Cooper 1997; Cooper 2000; Kyriacou 2000; Carlyle & Woods 2002; Johnson, Cooper et al., 2005). Many teachers find the demands of being a professional educator in today's schools difficult and at times stressful. The most often reported causal factors of such stress have included school ethos, workload, and lack of support from colleagues and administrators (Timperley & Robinson, 2000; Wilson, 2000). Travers and Cooper (1997) found that in comparison to other occupations, teachers experience much higher levels of stress. They found that 41% of teachers reported high to very high levels of occupational stress. This was compared with 31% in the nursing profession, 29% in managerial roles, and 27% in support and managerial management. Moreover, more recent research suggests that teaching in schools is such a highly stressful occupation for some teachers that they are suffering from physical and emotional distress, with some choosing to leave the profession altogether (Mearns & Cain 2003; Chaplain, 2008). A recent survey of 1200 beginning teachers has confirmed this trend. The report was conducted by the Australian Education Union in Victoria; it found that key concerns that were affecting the teachers were listed as excessive workload 64%; pay 56%; class sizes 55%; and behaviour management 60%; a more worrying and significant finding from the study was that 45% of the beginning teachers indicated that they were intending to leave the profession (Union, 2006).

### 1.1 Teacher Stress and Burnout

Burnout is well documented and has been identified as a feeling of physical, emotional and mental exhaustion that results from an accumulation of stress and pressure in the working environment (Maslach 1982; Maslach & Schaufeli 1993; Maslach, Jackson et al., 1996; Bullough & Baughman 1997; Maslach & Leiter 1997;

Brown & Ralph 1998; Hilton & Rotheiler 1998; Maslach & Goldberg 1998; Esteve, 2000).

Studies regarding teacher stress and burnout have indicated that negative aspects of teachers' work include such aspects as overcrowded classrooms, student apathy and student disruptive behaviour (Bennett & LeCompte 1990; Travers & Cooper, 1996). Demanding parents, inadequate salaries, lack of support from school administrators, and colleagues also have been found to contribute to the negative image of the teaching profession (Farber 1991). Factors such as a lack of work recognition for completed work, general apathy, and the multiplicity of teaching roles now expected in schools complete the despondent outlook of the profession (Greene, Caracelli et al., 1989; Bakker & Schaufeli 2000; Brouwers 2000; Brouwers and Tomic, 2000). These particular aspects are considered to be 'stressors'. According to Cooper et al., (2001), a stressor can be thought of as something in the environment that acts as a stimulus. The stimulus can be physical, behavioural or psychological in nature. Often teachers feel unable to cope with the 'stressors' of their role, and high levels of stress can result in the phenomenon of burnout. Resulting symptoms associated with burnout can be severe and can include a decrease in the mental and physical well-being of teachers (Hock 1988; Bryan, 2003). These stressors are and have been a major reason that an alarming number of teachers are often choosing to leave the job (Farber 1991; Jenkins & Calhoun, 1991; Ewing, 2001; Ewing & Smith, 2002; Hogan, 2007). A recent research report confirms this trend. The report indicated that significant positive associations were found between teachers' intentions to leave the profession and all three subscales of the Educators' version of the Maslach Burnout Inventory MBI (Maslach, Jackson et al., 1996). The authors of the study suggest from their findings that there is strong support for the view that early career burnout for teachers is a realistic and straightforward explanation for high attrition rates among the teaching profession in a number of countries including Australia (O'Brien, Goddard et al., 2007) .

When work stress that is associated with 'cognitive dissonance' results in the phenomenon known as teacher burnout, it can have serious consequences for the health and happiness of teachers, and also the students, professionals, and families

with whom they interact on a daily basis. Cognitive Dissonance is the perception of incompatibility between two cognitions, which can be defined as any element of knowledge, including attitude, emotion, belief, behaviour or value system (Harmon-Jones & Mills, 1999). It is the uncomfortable tension that comes when teachers hold two confronting sets of cognitions at the same time. When the cognitions clash or contradict each other they are dissonant. For example a fundamentalist Christian Science teacher could be called upon to teach or to learn a theory or idea, which contradicted what they already knew or believed. The teacher might believe in creationism and be required to teach the theory of evolution to his or her students. If they were committed to that prior knowledge they would be likely to resist the new learning. A person who has experience of such dissonant or discrepant cognitions experiences the unpleasant sensation of dissonance as a psychological tension commonly referred to as 'stress'. It is of importance to note that the magnitude of teachers' experience of stress through cognitive dissonance is directly proportional to the number of discrepant cognitions and inversely proportional to the number of consonant cognitions that a teacher has. The relative weight of any discrepant or consonant element is a function of its importance. Dissonance is experienced as an uncomfortable, cognitive state. Teachers are therefore, motivated to reduce any dissonance that they experience, with the ultimate action of the teacher either resolving the dissonance or leaving the profession (Harmon-Jones & Mills, 1999).

The most widely accepted definition is that which has been proposed by Maslach et al., (1996). Burnout is viewed as a three dimensional syndrome of *Emotional Exhaustion*, *Reduced Personal Accomplishment* and feelings of *Depersonalisation* that occur among people in caring professions. *Emotional Exhaustion* comes about from fatigue and from a lack of enthusiasm that an individual teacher holds in respect to his or her work. *Depersonalisation* in teaching is viewed as emotional distancing from students in the teacher's care and teachers who feel that there is no value in what they are doing in a school setting experience a lack of *Personal Accomplishment*. According to Maslach, Jackson and Leiter (1996) a pattern of emotional overload, and subsequent emotional exhaustion, is at the core of the burnout syndrome. The authors argued that a likely psychological response to such *Emotional Exhaustion* was for an individual to feel completely drained and lacking the energy to face another day. In such situations teachers generally perform less

well; become depersonalised, develop negative, cynical and often callous attitudes towards students, colleagues, parents and employers. The effects of burnout represent a significant problem within the teaching profession.

The relatively high rates of teacher attrition have been consistently identified as a major issue for the teaching profession over several decades as a result of stress and burnout. Attrition rates were reported in a study by Gold as being as high as 30% for beginning teachers within three years of commencing work (Gold, Roth et al., 1991; Gold 1996). An article that was published in the United States reviewed empirical literature on teacher recruitment and retention that specifically examined the characteristics of individuals who entered and remained in the teaching profession (Department of Education United States and National Center for Educational Statistics, 2002). The reviewed research literature offered several consistent findings. College graduates with higher measured academic ability were less likely to enter the teaching profession. The highest attrition rates seen for teachers occurred in their first years of teaching and for those teachers that were near retirement. Also teachers in the subject areas of mathematics and science were also more likely to leave than teachers in other subject areas. Female teachers had typically higher attrition rates than male counterparts. Teacher retention was generally found to be significantly better in public schools than in private schools. Schools that were shown to provide its teachers with more autonomy and administrative support had lower levels of attrition and teacher migration. The findings of the study supported the theory that the recruitment and retention of teachers depended on the attractiveness of the teaching profession relative to alternative professions (Guarino, Santibanez et al., 2006).

In Victoria a survey was carried out by the Victorian Education Department that indicated that the teaching industry was in a state of crisis (Victorian Education Department, 2006). The report suggested that there was a problem in the department related to teacher shortages. The shortages were especially prevalent in secondary schools and the number of teaching staff in the department had declined significantly, with significant shortages in regional areas. The report also revealed that secondary schools were encountering problems in attracting enough teachers to fill specialist-teaching subjects such as mathematics and science. Contract teaching

positions were also failing to attract young professionals into the profession. The report also highlighted the growing shortage of male teachers, with 72.5% of the teaching workforce being female. The teaching profession was also said to be facing a rapidly ageing workforce, with the report indicating that more than half of the government schoolteachers were aged over 44 years of age.

Attrition rates in the Catholic school sector were also suggested as being high. The author suggested that reasons for this reduction in teacher numbers were due in part to the many changes that had taken part with the Victorian state, with respect to education. Such changes had included: the introduction of teaching contracts that were not ongoing in 1993 by the state Liberal government, the closure of many schools, amalgamation, restructuring, higher class numbers and cuts in government funding, all said to be contributors in the reported cases of teacher burnout (O'Connor & Clarke, 1990; Pierce & Molloy, 1990; Bluett, 1998).

Moreover, research that was conducted by Goddard et al., (2006) suggested that many teachers actually burnout very quickly once they begin to practice teaching in schools. Respondents in the study were shown to be clearly and consistently reporting a declining view of their working environments. In addition, associated with the perceived declining work environments, there was shown to be an increasing proportion of respondents reporting that their efforts invested in their teaching work were disproportionately greater than the rewards they believed that they should receive from being a teacher (Goddard, O'Brien et al., 2006).

Burnout is associated with both psychological and physiological symptoms. Such physiological symptoms include somatic complaints, psychosomatic symptoms, and a decrease in mental health (Sakharov & Farber, 1983; Brenner & Bentall, 1984; Shirom 1986; Melamed, Ugarten et al., 1999; Bauer, Stamm et al., 2006).

Historically and more recently in order to alleviate and find possible interventions regarding the aetiology of stress and burnout among the teaching profession many researchers have endeavoured to identify the main contributory factors (Dunham, 1977; Cichon & Koff, 1978; Farber, 1984; Gold, 1984). The majority of previous

research has focused upon environmental factors. These have included role conflict: ambiguity, relationships with colleagues, attitudes and behaviours of pupils and an increase in accountability demands as a greater number of teachers leave the profession (Maslach, Jackson et al., 1996; Weisberg & Sagie, 1999; Kenyeri, 2002; Darling-Hammond, 2003; Inman & Marlow, 2004; National Education Association, 2005).

Demographic variables also have been shown in the literature to influence teacher burnout as well, with age representing a contributory factor (Bakker, Demerouti et al., 2002). Some research has tended to indicate that younger teachers had a greater propensity to suffer from burnout symptoms as opposed to more mature teachers (Maslach & Jackson, 1981; Farber, 1984; Gold, 1984; Ewing, 2001; Ewing & Smith, 2002; Hogan, 2007).

The next section continues the review of literature of teacher burnout, however it reflects specifically on job and person mismatch.

## **1.2 Teaching and Person Mismatch**

Workload, reward, community, fairness, values and control have been identified as influencing a teacher's engagement in a school setting that represent the potential mismatch that can occur between an individual teacher and their job (Maslach, Schaufeli et al., 2001). When accountability measures and organisational inequalities overwhelm teachers, especially those teachers whose ideologies or skills do not match work demands, feelings of lack of control, work overload and a perceived lack of fairness can occur (Farber, 1984; Gmelch & Torelli, 1993; Jones 1993; Manlove, 1994; Myung-Yung & Harrison, 1998; Fore III, Martin et al., 2002; Taris, Van Horn et al., 2004). Some research has suggested when teachers are overloaded a lack of professional community can result, with an associated loss of collegial support. Lack of professional community is seen as deriving from lack of communication between teachers who are just too busy with work commitments (Ayres, Schalock et al., 2002). A lack of reward, and perceived value conflict has been suggested to occur when teachers not only see the mismatch between their belief systems and the

demands and ideologies placed on them, but the mismatch they perceive between work demands and their actual salaries (Friedman & Farber, 1992; Cherniss, 1997; Evers, Brouwers et al., 2002; Pines & Maslach, 2002).

Parkes (1994) suggested that understanding the individual differences amongst teachers may lead to understanding the variation in the experience of workplace stress. Parkes argued that teachers would all be exposed to similar intrinsic job factors, and that any associated environmental stressors would be expected to be relatively similar and constant, especially for those working in a comparable setting under similar conditions.

However, individuals do not all suffer from high levels of stress, some have been found to be more susceptible to stress than others, and only a few reach the burnout stage (Travers & Cooper, 1997). Such studies have indicated that teacher stress levels have been found to differ cross-culturally and across genders (Travers & Cooper, 1997; Male & May, 1998).

The research literature clearly indicates that stress and ultimately burnout is shown to be associated with a multitude of factors. Such factors include; environmental factors, intrinsic job factors and individual factors. Historically a transactional model was used by Cox (1978) to explain this multifaceted dimension, where there is hypothesised to be considerable interplay between the individual and the environment. Cox stated that it was probable that although external factors trigger teachers' stress perceptions, individual factors play a major part in either moderating or mediating the perceived stress. Stress is usually a personal phenomenon, which suggests that stress responses might be affected by personality traits (Travers & Cooper, 1997). Research has reported relatively few dimensions of personality traits that demonstrate a systemic relationship with work related stress (Mearns & Cain, 2003). The research that has examined personality traits in connection with stress and stress-related illnesses, have focused on Type A behaviour patterns. Personality traits such as impatience, hostility, irritability, competitiveness, and achievement strivings have been associated with Type A behaviour patterns (Burns & Bluen, 1992; Jex, Adams et al., 2002; Jepson & Forrest, 2006).

An alternative approach is to examine the beliefs and value systems held by teachers, in order to understand their potential to change and respond to stressors in their environment.

Therefore, the purpose of this study is to investigate the ways in which teachers' prevailing worldviews interact with their work environment, based on an understanding of teacher's beliefs and value systems from a worldview perspective.

### **1.3 Research Focus**

The research focus of this study is to explore and investigate the use of Graves (1981) and Beck and Cowan's (2002) spiral dynamics model as a way to understand teacher beliefs, and value systems from a worldview perspective.

The spiral dynamics model can be best thought of as a broad orientating paradigm, or a schema through which humans interpret the world. Beck and Cowan (2006) referred to these patterns of thinking as 'vmemes' or value memes (short for values attracting meta memes). These value memes fall into eight discreet levels with the potential for higher levels to emerge depending on life situations. The value meme leads to certain beliefs, motivational patterns and goals within an individual.

Graves (1981) identified eight developmental levels of worldviews, each developed as a result of changing perceptions of the world parallel with life conditions that necessitated those changes. According to this model, every level represents a worldview or a belief system and these levels provide the pattern of how humans' worldviews change. These were labelled with letters; however, later on his colleagues Beck and Cowan (1996) used colour labels. These developmental levels are summarised below.

1. **Beige:** Not generally active today, dominated by nature and basic survival instincts. Seen in newborns, and senile elderly especially in the latter stages of Alzheimer's, 1% of the world population.

2. **Purple:** Tribal, animistic, spiritistic, magical, close to the earth with a cyclic outlook. Seen today in biker gangs, African tribes, and team building in professional sports, 10 % of the world population, and 1 % of power.
3. **Red:** Exploitative, rough, harsh and authoritarian. The fittest of the fit survive mentality. This can find expression in the exploitation of unskilled labour. An assumption of this value meme is that people are inherently lazy and must be forced to work. Currently evident in street life and gangs in inner cities. Evidence seen in terrible twos with children, soldiers of fortune, many rock stars, rebellious youth, 20 % of world population, with 5% of power.
4. **Blue:** Loyal to the truth, authoritarian, that which is defined by social grouping. Patriotic, leads people to obey authority. Individuals feel guilty when not conforming to group norms. Individuals serve for the greater good through self-sacrifice. This blue value meme works well in industrialised economies. Discipline is strict, often public, and can be extreme. The US has shifted away from 'blue' industries, whereas places such as Mexico and Taiwan have adopted this blue value meme. Seen in Puritan America, Islamic fundamentalism and China, 40 % of world population, with 30 % power.
5. **Orange:** Entrepreneurial, personal success orientation, with each person rationally calculating what is to their personal advantage. Motivation is concerned with economics. Individuals respond to pay rather than to loyalty. Competition is seen to improve productivity and the fostering of growth. This particular value meme is dominant in the present United States of America. Main concerns are manipulation of the environment and autonomy and usually results in a free market economy. Seen in Wall Street, cosmetic industries, Hong Kong, and consumerism in general, 30 % of the world population and 50 % of power.
6. **Green:** Communitarian, humanistic and caring, the focus with the green value meme is community and personal growth, equity and attention to the environment. Work is seen as motivated by human contact and contribution, learning from others. Being accepted and liked is more important than competitive advantage. Leaders are less autocratic. This value meme is seen in the caring professions, Green Peace and the animal rights movement, 10 % of the world population and with 15 % of power.

7. **Yellow:** Systemic value meme that has recently evolved. A quantum shift has occurred in the capacity of acceptance of multiple perspectives in life. The yellow value meme is motivated by learning for its own sake and is also orientated towards integration of complex systems. Change is seen as being central, and is in fact welcomed as part of the process of life. It is characterised by systems thinking, in other words an orientation to how parts interact in creating a greater whole. The yellow value meme likes dealing with ideas. It is ecologically orientated, but behind the scenes, and individuals, often work on the periphery of organizations, quietly fine-tuning situations and procedures. Seen in chaos theory, and in eco-parks, 1 % of the world population and 5 % of power.
8. **Turquoise:** The most recently evolving value meme that is focused in a holistic, global integralism. Work must be seen to be meaningful to the overall health of life. Information and feelings experienced together that enhances both work and health. Individuals are able to perceive and accept other value memes, they are often conscious of energy and links in all aspects of life. The worldview urges individuals to use collective human intelligences to work on solving large-scale problems without sacrificing individuality. Seen in the Gaia Hypothesis, the ecol- village, and Ghandi's idea of pluralistic harmony. This value meme is not influential as yet. It is evident in only 1 % of the world population and 1 % of power.

The general trajectory of value memes is for them to move from least complex to higher, more complex value memes as humans' evolve. An individual if profiled would be expected to have a combination of a dominant value meme, and two lesser value memes. Significantly the authors Beck and Cowan (2006) suggested that the dominant value meme/worldview of an individual could be changed if life conditions were of a sufficient magnitude for change to occur. For example, in a sporting arena, the red value meme might be appropriate, although in a relationship, the blue value meme may likely become dominant.

The spiral dynamics model is chosen because it provides a holistic framework for understanding teachers' beliefs and value structures. It is also proposed that the

model may be useful for the reconciling of teacher personal beliefs with the reality of teaching, thus reducing teacher burnout. The research objectives are therefore:

1. To examine the individual experiences, challenges and rewards of teaching in a small rural school.
2. To ascertain whether there is a relationship between teacher stress, burnout and prevailing teacher worldviews.
3. To investigate the ways in which teachers' prevailing worldviews interact with their work environment, based on an understanding of teachers' beliefs and value systems from a worldview perspective.

## **1.4 Definition of Terms**

### ***Locus of control***

Locus of control refers to the extent to which individuals believe that they can control events that affect them. Individuals with a high internal locus of control believe that events result primarily from their own behaviour and actions. Those with a high external locus of control believe that powerful others, fate, or chance primarily determine events. Those with a high internal locus of control have better control of their behaviour, tend to exhibit more political behaviours, and are more likely to attempt to influence other people than those with a high external locus of control; they are more likely to assume that their efforts will be successful. They are more active in seeking information and knowledge concerning their situation. Conversely, individuals with an external locus of control tend to exhibit less political behaviours, and are more likely not to attempt to influence other people than those with a high internal locus of control; they are more likely to assume that their efforts will be unsuccessful (Smith, 1989).

In other words one's locus can either be internal (meaning the person believes that they control their life) or external (meaning they believe that their environment, some higher power, or other people control their decisions and their life (Rotter, 1990).

### ***Collegiality***

This concerns colleagues who are those explicitly united in a common purpose and respecting each other's abilities to work toward that purpose. A colleague is an associate in a profession or in a civil or ecclesiastical office. The word *collegiality* can also connote respect for another's commitment to the common purpose and ability to work toward it (Lorenzen, 2006).

### ***Self-efficacy***

Self-efficacy has been described as the belief that one is capable of performing in a certain manner to attain certain goals. It is a belief that one has the capabilities to execute the courses of actions required to manage prospective situations. It has been described in other ways as the concept has evolved in the literature and in society: as the sense of belief that one's actions have an effect on the environment; as a person's judgment of his or her capabilities based on mastery criteria; a sense of a person's competence within a specific framework, focusing on the person's assessment of their abilities to perform specific tasks in relation to goals and standards rather than in comparison with others' capabilities. Additionally, it builds on personal past experiences of mastery (Omrod, 2006).

### ***Group think***

Groupthink is a type of thought exhibited by group members who try to minimize conflict and reach consensus without critically testing, analysing, and evaluating ideas. Individual creativity, uniqueness, and independent thinking are lost in the pursuit of group cohesiveness, as are the advantages of reasonable balance in choice and thought that might normally be obtained by making decisions as a group. During groupthink, members of the group avoid promoting viewpoints outside the comfort zone of consensus thinking. A variety of motives for this may exist such as a desire to avoid being seen as foolish, or a desire to avoid embarrassing or angering other members of the group. Groupthink may cause groups to make hasty, irrational decisions, where individual doubts are set aside, for fear of upsetting the group's balance. The term is frequently used pejoratively, with hindsight (Richardson & James, 2001).

## **1.5 Significance of the Study**

The proposed research represents an original contribution to knowledge regarding the ways in which teachers' prevailing worldviews interact with their work environment. The research programme is based on Grave's (1981) worldview model; however, it extends it specifically to a school-based local context, which has not been undertaken previously in Australia. The theoretical significance of the study is to determine whether the Spiral Dynamics model approach can be adapted successfully to the school and educator context. The implications associated with this type of research are also significant, as the impact of perceived stress and burnout upon teacher retention and recruitment is seen to be substantial (Borg, Riding et al., 1991; Beer, 1992; Dunham & Varna, 1998; Cooper, 2000; Dworkin, 2001; Kyriacou, 2001; Fore III, Martin et al., 2002; Jarvis, 2002; Victorian Education Department, 2006).

Based on an understanding of teacher's beliefs and value systems from a worldview perspective, the thesis of the study is centred on the proposition that through identifying individual teachers who are more likely to suffer stress and potential burnout in their work environments, schools can identify those teachers who require support. This may in turn lead to the development of teacher professional development programmes to assist those individuals to develop adequate coping strategies, which are adaptive to the inevitable demands and pressures of the teaching profession. Individual contributory factors could also be utilised to inform theory on position allocation and actual job selection procedures in schools. Through the exploration of individual factors that can contribute to stress and potential burnout amongst teachers, the researcher argues that a consequence of such research may involve the facilitation of the fostering of a healthy working environment, which could be extremely conducive in encouraging a greater occupational commitment amongst school staff communities, with a reduction or mediation of the effects of perceived stress and lead to professional development strategies to prevent the development of burnout in teachers, and enhance their retention in the teaching workforce.

## **1.6 Overview of the Thesis Structure**

The design, development, implementation and findings of this study are presented in five chapters. First, chapter 1 provides a review of background research literature on the problem of stress in the teaching profession and also provides the research objectives for the study. A review of literature that is related to theories of cognitive dissonance, teacher stress, the phenomenon of teacher burnout, teachers' value systems and beliefs, and the perspective of worldview are presented in chapter 2. The chapter also identifies in particular the key concepts associated with teacher burnout and identifies the limitations of previous research on the effects of reducing or mediating its impact on the teaching profession. This chapter establishes the rationale for this particular study, and demonstrates the originality of the approach undertaken, also in chapter 2, the statement of the problem, and research questions are considered and identified. Chapter 3 provides a review of literature related to theories of approaches to the research process; research paradigms are discussed, as are associated research terminologies. The chapter also establishes the design and methodology for the study. Finally, the rationale for adopting a mixed method research approach is provided. Chapter 4 presents an analysis and interpretation of the findings from both the quantitative and qualitative data of the study. The final chapter 5 provides an overview of the study, re-stating the main research question and subsidiary questions. It also summarises the main findings before discussing the significant issues and recommendations that emerged. Finally, limitations and directions for future research are presented.

## **CHAPTER 2**

### **LITERATURE REVIEW**

#### **2.0 Overview**

This chapter provides a review of the literature related to theories of cognitive dissonance, teacher stress, the phenomenon of ‘teacher burnout’, teachers’ value systems and beliefs, and the perspective of worldview. It identifies in particular the key factors associated with ‘teacher burnout’ and identifies the limitations of previous research on the effects of reducing or mediating its impact on the teaching profession. This chapter also establishes the rationale for this particular study, and demonstrates the originality of the approach undertaken.

#### **2.1 Cognitive Dissonance**

According to Harmon-Jones and Mills (1999), cognitive dissonance theory holds that a sane person cannot hold two conflicting ideas or perceptions in his/her mind at the same time. In other words, people cannot think of themselves as both clever and stupid at the same time. One of the conflicting ideas (cognitions) therefore is said to be in conflict. To reduce dissonance one might edit memories; censor one’s sensory perception, re-focus attention - until one of the two conflicting ideas is removed. A person will see, hear, feel, smell, and remember things only as long as they are congruent with the beliefs that they choose to accept - i.e., they will adopt a cognitive bias to reduce the dissonance.

In other words, seeing is not believing - but rather: believing is seeing: We can only see what we already believe. For example if a person were to consider themselves a genius then the argument would be that they would see and remember all the evidence that would be required to support that belief. Conversely, if an individual were to make up their mind that they were ignorant, then the argument would be that

the individual would also find ways to support that belief. Beliefs are seen to control the senses and memory.

Cognitive bias in humans is completely normal and it has not been considered as a mental health problem. The mind is purported to reject information that is seen to be incompatible with what an individual already knows, or the mind accommodates to new information by creating a new schema. If this position is accepted then all humans are 'cognitively biased', in accord with their personal perceptions and beliefs. This assertion is important because there are very few things that we can control. For example, we cannot control the weather, the economy or other people. However, we can control our own beliefs. Unfortunately, most people cannot hold the very idea that 'just' our thoughts can facilitate change in our behaviour.

### **2.11 Theory of cognitive dissonance**

Cognitive dissonance is the perception of incompatibility between two cognitions, which can be defined as any element of knowledge, including attitude, emotion, belief, or behaviour. It is the uncomfortable tension that comes from holding two conflicting thoughts at the same time. The theory of cognitive dissonance states that contradicting cognitions serve as a driving force that compels the mind to acquire or invent new thoughts or beliefs, or to modify existing beliefs, so as to reduce the amount of dissonance (conflict) between cognitions. Experiments have attempted to quantify this hypothetical drive. This theory of cognitive dissonance was first proposed by the psychologist Leon Festinger in 1956 after observing the counter-intuitive belief persistence of members of a UFO doomsday cult and their increased proselytization after the leader's prophecy failed. The failed message of earth's destruction, sent by aliens to a woman in 1956, became a disconfirmed expectancy that increased dissonance between cognitions, thereby causing most members of the impromptu cult to lessen the dissonance by accepting a new prophecy; that the aliens had instead spared the planet for their sake (Festinger & Carlsmith, 1959; Harmon-Jones & Mills, 1999).

## **2.12 The relationship of cognitions**

The relationship of cognitions in Festinger's model was simple: cognitive irrelevance described how most cognitions related to each other - they had little or no psychological bearing on each other. Cognitions were consonant if they logically related, supported or complemented each other and cognitions that clashed or contradicted each other were dissonant.

Little anxiety exists when our salient cognitions are consonant even when they are dissonant with socially proscribed cognitions of significant others. Much anxiety can exist in cases where there is dissonance and where the cognitions are deemed personally and socially significant. The root cause for these feelings are probably both innate and socially mediated. The basic postulate of Festinger's theory held that a person who had dissonant or discrepant cognitions experienced the unpleasant sensation of dissonance as a psychological tension. Festinger viewed this tension state as a Freudian drive with the power like that of hunger and thirst. Reducing the psychological state of dissonance was not seen as simple as eating or drinking, however (Harmon-Jones & Mills, 1999).

## **2.13 Magnitude of dissonance**

As presented by Festinger in 1957, to understand the alternatives open to an individual in a state of dissonance, one must understand the factors that affect the magnitude of dissonance arousal. First, in its simplest form, dissonance increases as the degree of discrepancy among cognitions increases. Second, dissonance increases as the number of discrepant cognitions increases. Third, dissonance is inversely proportional to the number of consonant cognitions held by an individual. In most life situations, cognitions exist which support certain aspects of an otherwise discrepant situation, the greater the number of such consonant cognitions, the less the dissonance. Fourth, the importance or salience of the various cognitions must be taken into consideration. Glaring discrepancies among trivial cognitions does not lead to much dissonance.

The magnitude of dissonance between one cognitive element and the remainder of the person's cognitions is dependent on the number and importance of cognitions

that are consonant and dissonant with the one in question. Festinger proposed that a complex formula that he referred to as the dissonance ratio could be utilised to ascertain the extent or magnitude of dissonance. The formula magnitude of dissonance equals the number of dissonant cognitions divided by the number of consonant cognitions plus the number of dissonant cognitions. If the number and importance of dissonant cognitions are constant, as the number or importance of consonant cognitions increases, the magnitude of dissonance decreases.

An example that Festinger and Carlsmith (1959) used was cited by Harmon Jones and Mills (1999) and this assisted in elucidating this complex theory. An individual who smokes, knowing full well that smoking is a potential hazard to his/her health will experience dissonance. This is because the knowledge that smoking is detrimental to health is dissonant with the cognition that he/she continues to smoke. The individual can reduce the dissonance simply by changing their behaviour. That would involve the cessation of smoking, which would be very difficult because the individual may be addicted to the nicotine contained in the cigarette smoke. If the change were possible then this change in behaviour would be seen to be consonant with the knowledge that smoking is a hazard to health. However, alternatively the individual could reduce dissonance by simply changing the cognition that he/she held regarding the effect that smoking has on his/her health by believing that smoking does not have a detrimental effect on health. They may perceive that there are in fact positive effects of smoking and believe that smoking reduces stress, thus adding consonant cognitions (Harmon-Jones & Mills, 1999).

## **2.14 Reducing the tension**

If dissonance is experienced as an unpleasant drive state, the individual is motivated to reduce it. The problem as far as predicting behaviour is that there are several ways to reduce this tension.

- Changing cognitions. If two cognitions are discrepant, then we may simply change one to fit the other, or attempt to bring them both towards the middle. We may even synthesise the contradictions into a new and grander synthesis.
- Adding cognitions. If two discrepant cognitions cause a certain magnitude of dissonance, adding one or more consonant cognitions can reduce that

magnitude. This implies that we are able to weight, one cognition as more important than the other.

- Altering importance. Since the discrepant and consonant cognitions must be weighted by importance, it may be advantageous to alter the importance of the various cognitions to an even larger degree. When the new, altered importance weightings are placed in the formula, the magnitude of dissonance will be decreased.
- The paradigm of induced compliance. In the induced compliance paradigm, individuals are persuaded to behave in ways, which are inconsistent with their private attitudes. Cognitive dissonance is established by a discrepancy between one's behavioural and attitudinal cognitions. Cognitions about attitudes are usually weaker than those about actual behaviours. Behaviour is often public, the actor is identified with it, and it is extremely difficult to deny that one has behaved in a certain way. Private attitudes can be changed more easily. Therefore, in the psychology of induced compliance, researchers have generally looked for changes of attitudes as evidence of dissonance reduction (Aronson, 1992; Sloane & Williams, 1994; Aronson, 1997; Harmon-Jones & Mills, 1999).

Although changing attitudes is easier than changing cognitions about public behaviour, it takes work and effort. If a consonant cognition is available, it is more likely to be seized upon as the means of reducing dissonance.

In summary dissonance or 'cognitive dissonance' is the perception of incompatibility between two cognitions, which can be defined as any element of knowledge, including attitude, emotion, belief, behaviour or value system. It is the uncomfortable tension that comes when teachers hold two confronting sets of cognitions at the same time. When the cognitions clash or contradict each other they are dissonant. A person who has experience of dissonant or discrepant cognitions experiences the unpleasant sensation of dissonance as a psychological tension commonly referred to as 'stress' (Harmon-Jones & Mills, 1999).

## **2.2 Teacher Stress**

The relationship between stress and teaching is not a new notion. Stress is an inherent part of the pedagogy of teaching because the profession is replete with stress factors such as everyday routine, devalued social status, and uncertainty (Rean & Baranov, 1998). This is unfortunate, according to Morris (1998), because stress undermines physical, emotional and intellectual energies, usually when they are needed most.

Although research regarding teacher stress has become a major area of international interest, and has been a much-discussed phenomenon, there is little consensus between different professional groups regarding its aetiology, or how it could be addressed. Jarvis (2002) reviewed international research and concluded that teacher stress is a real phenomenon and that high levels of reliability are associated with a range of causal factors, including those intrinsic to teaching, systemic influences and individual vulnerability. He suggested that we have a reasonable understanding of the aetiology of teacher stress, however little is known about the effects of reducing or mediating the impact of the phenomenon. He also indicated that much of the published research concerns student teachers. Whilst this is clearly important he argued that one should be wary of generalising from student teachers to qualified and experienced teachers.

### **2.21 Definitions and models of teacher stress**

The term 'stress' is defined as the experience that a teacher provides to some aspect of their work that causes feelings of negative emotions, these negative emotions include the feelings of; anger, anxiety, frustration, tension and depression. Essentially stress is viewed as a negative emotional experience that is triggered by the teacher's own perception that their working environment is or will constitute a threat to their well-being or self-esteem (Kyriacou, 2000). Different definitions have been associated with teacher stress in other publications. Some researchers including Guglielmi and Tatrow (1998) and Vandenberghe and Huberman (1999) have used the term stress to refer to levels of pressure and demands that are made on individuals and have frequently used the term 'strain' to refer to the reaction to stress. Some have defined stress in terms of the degree of mismatch between the

demands placed on an individual teacher and the teacher's ability to cope with such demands (Jenkins & Calhoun, 1991; Male & May, 1998; Kyriacou, 2001). Teacher stress has also been defined as a response syndrome of negative effects such as an increased heart rate that has resulted from an aspect of a teacher's role and mediated by the perception that demands placed upon a teacher constitute a threat to his/her self-esteem or well being (Kyriacou, 1997). This definition conceptualised teacher stress as a negative state that could potentially damage the health of a teacher. A key element in the definition was concerned with the teacher's perception that they could not cope with demands that were placed on them in the teaching environment.

Some studies have identified many sources of stress that are intrinsic to the task of teaching. Such sources have included role overload, associated demands placed on time, disruptive students, inadequate support from school administration, lack of social recognition for teaching and inadequate resources (Tuck & Hawe, 1999).

Definitions of teachers' stress have revealed that the issue is a complex interaction of factors, whose results may be concerned with negative feelings that are associated with stress. An assumption that has often been inherent in teacher stress definitions was that concerned with an important contributory factor in the experience of stress in teachers. This factor concerned elements of the individual teacher, emphasising the individual subjective perception of teachers specifically with regard to their working environment. In other words responses to stress could vary, both between individuals and over time (Borg & Riding, 1993).

Also, in addition, some researchers have focused on the notion of teacher 'burnout', which is seen as a state of emotional, physical and attitudinal exhaustion that may develop as a consequence of prolonged periods of stress (Huberman, 1993; Maslach, Schaufeli et al., 2001; Taris, Van Horn et al., 2004).

## **2.22 The prevalence of teacher stress**

Teaching has been shown in the literature to be one of the high stress professions (Travers & Cooper, 1996; Dunham & Varna, 1998; Kyriacou, 2000). Such research

that has been conducted indicates that over a quarter of teacher respondents have indicated that they felt that their work was 'very or extremely' stressful. According to studies that were conducted by Borg (1990), approximately a third of all teachers will find their occupation extremely stressful. Travers and Cooper (1997) found that in comparison to other occupations, teachers experience much higher levels of stress. They found that 41% of teachers reported high to very high levels of occupational stress. This was compared with 31% in the nursing profession, 29% in managerial roles, and 27% in support and managerial management.

Stress was identified as a major concern in 90% of work places in the United Kingdom, which has led to rising absenteeism and low morale amongst staff, and this has also been evident in the teaching profession. Stress among teachers' was also seen to be a major concern in respect to their health (Nattrass, 1991).

Huberman (1993) compared the ways in which teachers that had differing lengths of service viewed their working life and identified key stages and some associated concerns and frustrations typically experienced in their careers. Teachers were found to suffer from periods of self-doubt, reassessment and disillusionment. These concerns were found to either be resolved with the teacher continuing to teach or the teacher decided to leave the profession. Huberman suggested that common motives cited for teachers leaving the profession were routine, wear and tear, and difficulties in adapting to students, fatigue, frustration and nervous tension. The notion of 'wear and tear' or 'prolonged stress' has also been indicated as leading to teacher burnout (Huberman, 1993).

### **2.3 Societal and Social Structural Factors**

Sociologists have conceptualised burnout as a form of alienation involving dimensions such as: meaningless, isolation, estrangement and powerless. Alienation has been seen as having organisational and social roots and should therefore be addressed by the teaching of coping skills, rather than structural change. Although stress was seen as a precipitating causal factor in burnout, usually seen in psychological models, the causal elements of burnout were to be seen within the

structure of schools or the structure of educational systems (Dworkin, 1987; LeCompte & Dworkin, 1991; Dworkin & Townsend, 1994). If professionals were seen to be unable to negotiate agreement in organizations regarding their roles, performances or the determination of what their actual role expectations were, then these individuals would acquire a sense of powerless, which in turn could also lead to a sense of meaningless. Detrimental effects could include individuals withdrawing from social relationships within their respective organizations and possibly questioning whether continued participation in the organizational role was consistent with their self-conception of 'estrangement'. Sociologists have argued that burned out individuals revert to blaming their clients, in the context of schools these would be teachers blaming students, for failing to improve. Some teachers have been suggested in the literature (Shinn, 1982) to feel that students have purposely refused to improve their educational outcomes in order to spite them. In addition burned out professionals have described their organizations as being characterised by having degrees of dysfunctional rules, professionals have been reported as stating that the rules of many organizations including schools are either enforceable or cannot be interpreted (Sparks & Hammond, 1981; Shinn, 1982).

Research literature has suggested that there are numerous structural and organisational factors involved in the phenomenon of teacher burnout. One such factor included a general systematic decline in public confidence towards public education that has seen a perceived devaluation of education and the teaching profession, especially in advanced western industrialised nations (Dworkin, 2001).

Research has shown according to opinion polls that a large percentage of the public believes that most schools have not performed as well as they did in the past. The competence of public school teachers has been mentioned as a contributing factor over the past 40 years (Dworkin & Townsend, 1994). It has been also suggested that as public confidence has declined the best and brightest potential teaching recruits have elected not to pursue a teaching career (Guarino, Santibanez et al., 2006). It has been proposed in studies conducted in the United States by Dworkin & Townsend (1994) that many individual prospective teacher recruits that have chosen to study for major degrees in education, have often represented the lowest entrance scores

amongst other university undergraduates. In addition, women are dominating public schools, this has resulted in a restriction of abilities as higher paying, and more prestigious occupations have become available to women.

A time existed when teachers often represented the elite of modern society. Public school teachers were often far better educated than the parents of their students. However, the present day has seen over a third of all adults aged 25 to 29 educated with at least a university degree. Therefore, many schools have seen parents that are at least as well educated as the teachers with some that have higher degrees. It has been indicated in studies also that many middle class parents have assumed that they have interacted with teachers that have been seen as less able than themselves (Dworkin, 2001).

## **2.4 Career Aspirations**

Another factor affecting teacher morale has concerned the gap between the expectations created in pre-service teacher training institutions and the actual experiences of teachers in classrooms, especially seen in the classrooms of high-poverty schools that have resulted in highly stressful environments. Many pre-service teachers have insisted that they had been misinformed during their training to expect that they would be accorded professional autonomy and professional respect. Preservice students often regard teaching as a calling and expect that their students will be accepting of the knowledge that is offered to them. The actual experiences on graduation have not matched these assumptions. More and more teachers have been shown in research to be faced with abuse, few resources in classrooms, and have been treated with little or no respect. Such research has included studies from the National Centre for Education Statistics, which have indicated that teachers have also been victims of theft and physical attacks (LeCompte & Dworkin, 1991).

The effect of a mismatch between an individual's career aspirations and the reality of work within a profession has been cited as a root cause of burnout. Some of the earliest research has hypothesised that burnout arises from chronic disappointment arising from the recognition by teachers that their hopes and aspirations for the career

they have chosen and worked to enter were not realistic nor will be realised (Freudenberger & Richelson, 1980; Farber, 1984). This existentialist view of burnout was also supported in further literature which described burnout in teachers bearing a close resemblance to the theory, that distress arises from maintaining substantial mismatches between actual and ideal self-image (Friedman, 2000).

Although the burnout phenomenon has been studied across a wide range of professions, cultures and time frames over the past thirty years, substantial gaps in our knowledge still exist regarding some of the conditions that can give rise to burnout and how it specifically develops (Goddard & O'Brien, 2003). Whilst it is fairly well accepted that work climate factors, such as a persistently high and unremitting work pressure, lack of social support and work resources, poor role clarity and role conflict will contribute to elevated burnout levels in any work group, there is less certainty regarding the contribution that other factors may make to elevating or ameliorating burnout. The authors noted that research regarding the contribution that personality traits may make to the explanation of burnout, has only been reported relatively recently and there is considerable work to be done (Goddard & O'Brien, 2003).

It has been proposed that all views of burnout are triggered by feelings of 'inconsequentiality' (Fullan, 1996). In other words, a sense on the part of professionals that their efforts to help others have been ineffective, that the task is endless and that there seems to be a constant conflict between perceived professional autonomy and school institutional conformity. Fullan (1996) presented an argument that schools and teachers need to re-examine their values and beliefs: work towards certain shared institutional values, specifically, valuing learning, valuing interdependence and teamwork, valuing individuals through mutual consideration and support, and valuing willingness to compromise.

## **2.5 Teacher Beliefs and Values**

### **2.51 Beliefs**

Many researchers have viewed teachers as the main agent of change in educational reform and raising standards of education (Bybee, 1993; Black & William, 1998). Because of this, there are many studies related to teacher beliefs in the education literature. Studies include, teacher beliefs about constructivism (Beck, Czerniak et al., 2000), teacher beliefs about teaching and learning (Levitt, 2002; Tsai, 2002; Bryan, 2003), teacher self-efficacy beliefs (Barnes, 2000; Hanley, 2002), the relationship between teacher beliefs and their practice (Blake, 2002; Southerland, 2003), teacher beliefs and values regarding job satisfaction, goals and responsibilities, Harmon-Jones & Mills, 1999) and how teachers endeavour to reconcile their personal beliefs with the reality of teaching (Marston, Brunetti et al., 2005).

One of the possible reasons for the emphasis on teacher beliefs is that they may determine the behaviour of teachers and, if change is desired in their behaviours, the nature of their beliefs must be understood.

### **2.52 Conceptualising beliefs**

The construct 'beliefs' has been considered to be a messy or ill-defined construct (Parjares, 1992; Schoenfeld, 1992; Thompson, 1992).

According to Parjares (1992),

*“Defining beliefs is at best a game of player’s choice. They travel in disguise and often under alias—attitudes, values, judgments, axioms opinions, ideology, perceptions, conceptions, conceptual systems, preconceptions, dispositions, implicit theories, explicit theories, personal theories, internal mental processes, action strategies, rules of practice, practice principles, perspectives, repertories of understanding, and social strategy, to name but a few that can be found in the literature” (Pg. 309 ).*

One particular struggle with this particular construct therefore involves separating the definition of beliefs as exclusive from other phenomenon, such as attitudes,

values, and knowledge. Although many researchers have explicitly defined beliefs, their definitions stand in stark contrast to one another.

Beliefs are to be interpreted as an individual's feelings and understandings that shape the ways that an individual conceptualises and engages the world (Schoenfeld, 1992).

Thompson referred to beliefs using the term conceptions, in particular to sets of conceptions, those concerning for instance the nature and discipline of mathematics that may be viewed as a teacher's conscious or subconscious concepts, meanings, and mental images of the subject (Thompson, 1992).

Nespor (1987) identified four characteristic features of beliefs as opposed to knowledge: *alternativity*, *existential presumption*, *evaluative and affective aspects*, and *episodic storage*. *Existential presumption*, referred to assumptions about the existence or non-existence of entities, such as a belief in God. Features of beliefs that were referred to as *alternativity* were those that included representations of alternative realities. In other words, the way beliefs often arise out on an idealised vision of how things could be, in contrast to actual reality. *Evaluative and affective* aspects of belief were seen as the distinction between feelings and knowledge that are associated with knowledge. Nespor explained that beliefs differ from 'plain' knowledge in that beliefs were seen to be knowledge with attached feelings. Episodic storage concerned the premise that beliefs often drive their subjective power, and legitimacy from particular events that are stored in memory whilst knowledge was seen as semantic in nature.

Recent research to clarify definitions of belief, conception, and knowledge suggested that it is not useful to attempt to develop a multipurpose definition that could be used for multiple purposes (Pehkonen & Furinghetti, 2001). However, it has been suggested that researchers should clarify their particular stance on the following components when endeavouring to define beliefs (Parjares, 1992; Pehkonen, & Furinghetti, 2001).

- Situate the belief construct in the setting and goal of the research.
- Distinguish between objective and subjective knowledge.

- Consider varying degrees of stability.
- Distinguish between affective and cognitive beliefs, if required.

### **2.53 Relation to cognition of knowledge**

Abelson argued that individuals who hold a belief might often lack awareness to alternative thinking. He suggested evidence necessary for holding a belief, writing that the evidence for ‘proof’ of a belief is often episodic in nature, based in personal experiences, rather than general principles and that beliefs are often associated with ‘personal knowledge’(Abelsen, 1979).

Studies of beliefs have commenced with a desire to understand how people make sense of, and behave in the world. Schoenfeld (1992) reported that what people believe, they held to be true, and that they could not always be cognisant that others might think differently. Whether there is or not a shared social warrant for truth associated with the object of knowledge helps to distinguish its level of subjectivity, and beliefs are often cast as subjective knowledge. This consideration of beliefs to be forms of understanding, however subjective, is why many researchers have considered beliefs to be in the cognitive domain (Schoenfeld, 1992).

### **2.54 Relation to affect**

Schoenfeld referred to beliefs as not only cognitive understandings, but to individuals understandings and feelings (Schoenfeld, 1992).

Some researchers (Schloglmann, 1989; Seah, 2001) have had motivation for defining beliefs to include affective aspects, depending on the focal beliefs under investigation. These focal beliefs have sometimes been tied to emotions. However, the lack of consensus of differentiating beliefs as affective or cognitive may be in part due to the lack of a clear conceptual distinction between beliefs and other affective constructs. Beliefs that may be classified as affective might also be alternatively be classified according to an affective construct, such as attitude or values.

### **2.55 The relation of belief and values to cognition and affect**

Beliefs and values sometimes straddle the domains of cognition and affect differently (Furinghetti & Pehkonen, 2002; Seah, 2003). Beliefs often encompass more of the cognitive realm with some affective components whilst values encompass more of the affective realm with some cognitive components. The cognitive aspect of beliefs was seen to involve whether or not an individual recognised an idea to be true. Conversely, the affective aspect was seen to address whether or not an individual thought ‘that’ which should be true. In other words, beliefs should be seen to not only address how a person saw the world operate, but how it should operate. Thus, in other words the affective aspect of values involved an individual person’s stance toward what was seen to be desirable, whilst the cognitive aspect of values concerned whether or not an object such as an idea could be desirable depending on whether it registered as true for an individual.

- Beliefs are shown in the literature to be more than ‘what is true’ versus ‘what is false’ and values are seen to be more that what one considers to be ‘what is good’ and ‘what is bad’.
- Beliefs address what is ideally true, or what a person thinks should be true.

Depending on whether a beliefs or values lens is used then different types of knowledge are exposed and kept from viewing. Some examples of these different types of knowledge include beliefs concerned with:

- Self
- Subject
- Task values

### **2.56 Stability of beliefs**

Some researchers have referred to beliefs as being ‘generally stable (McLeod 1992). Others, including Furinghetti and Pehkonen (2002) have challenged us to see beliefs as less so and as being more dependent on the context (diSessa, Elby et al., 2002).

Hoffmann (2003) suggested that an issue related to the stability of belief is the level of commitment and certainty at which beliefs are held. It would be reasonable to

expect stable beliefs to be held at a strong level of commitment. When the actual level of commitment is considered high the distinction between beliefs and values often fades. This is because beliefs that are held strongly are centrally located in belief systems as opposed to value systems. Whether a belief is stable or not is related to how susceptible it might be to change. Certain beliefs in one's system of beliefs may change whilst others may not; not all beliefs that are possibly connected in a system necessarily change together (Hoffmann, 2003).

Parjares (1992) suggested that a researcher, who wishes to study people's beliefs should be clear about the definition of belief, and design his/her research accordingly. He elaborated in asserting that researchers often refer to teachers' attitudes about education, teaching, students, and learning as 'teacher beliefs'. However, he warned that teachers have beliefs about matters that go beyond their profession yet still influence their practice. He also argued that educational beliefs are not detached but are connected to a broader belief system. This broader belief system is often referred to as the perspective of worldview.

## **2.6 The Worldview Perspective**

Teachers' worldviews in relation to their beliefs, practice and their learning were studied by Cobern (1996), who argued that this approach provides a holistic overview compared to other research studies in this area.

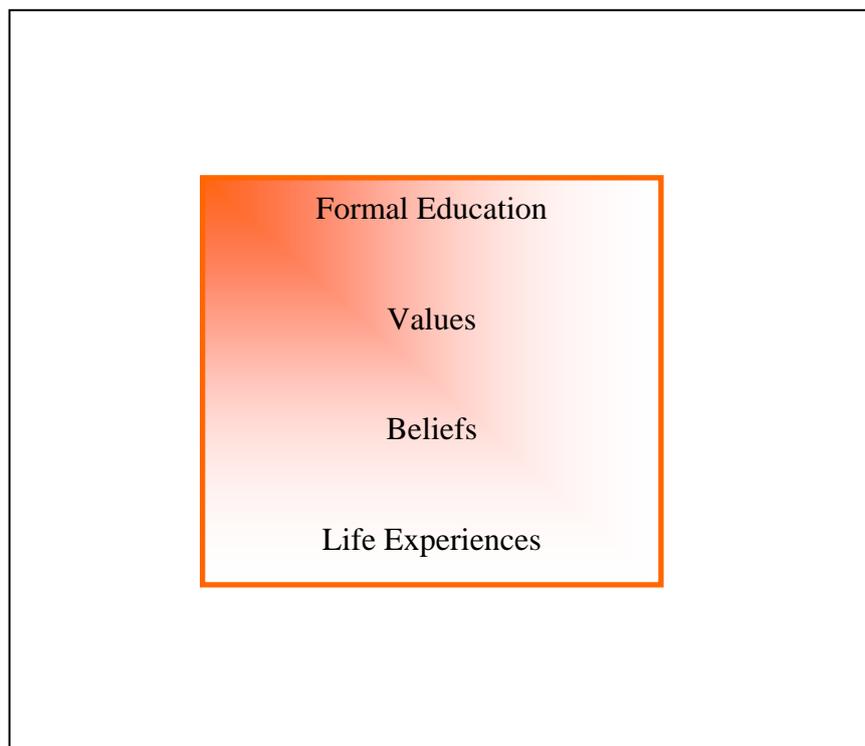
Worldviews are belief systems that influence people's behaviour and actions. Therefore, studying worldviews is possible through the study of people's beliefs. This is possible through observing behaviours, actions and by conducting dialogue. Inferences can be made from the obtained data. Worldviews are so much part of our lives that we see and hear them daily. However, we do not often recognise them. They are found in movies, newspapers, government, education and every aspect of culture in the world.

A worldview has a variety of definitions. For example, Shires (1997) proposed that a worldview has a set of presumptions or assumptions, which we hold consciously or

subconsciously about the basic make up of the world. Phillips (1991) stated that a worldview is, first of all, an explanation and interpretation of the world and secondly, an application of this view to life. James Orr, the 19<sup>th</sup> century church historian, said that a worldview denotes the widest view, which the mind can take of things in an effort to grasp them together as a whole from a standpoint of some particular philosophy or theology. A developed worldview supplied answers to questions of origin, purpose, and destiny among other things, or as some put it, the why, whence, and whither of things (Orr 1948). Middleton (1995) stated that a worldview provides a model and view of the world. What we think is important, and a worldview therefore, is like looking at the world through specific spectacles or contact lenses.

A more useful definition was proposed by (Wiesner-Ellix, 2001) see Figure 1.

**Figure 1. The Personal paradigm ‘window’ adapted from (Wiesner-Ellix, 2000) model of worldview (page 34).**



A worldview was defined as a paradigm ‘window’ frame that individuals looked out of to make sense of their world. In making sense of the world he suggested that people looked through their own special ‘window’. Just like a standard window, it had a frame that consisted of four sides. The four sides or four elements were formal

education, values, life experience and beliefs. The four elements were said to interact to ‘colour our view’ of the world. However, by doing so, just like coloured glasses, the elements filtered out certain information [colours], just as with sunglasses where the lenses either colour or polarise light that passes through resulting in each of us perceiving things differently.

The theoretical perspective of this study is based on the notion that the beliefs and value systems that an individual holds are attached to a larger belief system called a worldview. A worldview represents the fundamental beliefs a person holds which he/she refers to as presuppositions (central beliefs) and then makes a distinction between presumptions and ordinary beliefs (Coburn, 1991). Worldviews are shaped by the beliefs that form from the fundamental organization of the mind, and knowledge is filtered through worldview before it is either accepted or rejected, or modified (Kagan, 1992).

Worldview is a word that is often used in human sciences. However, it is seldom defined and despite its frequent usage, few theoretical frameworks are developed to understand and study it.

## **2.61 Worldview frameworks**

The anthropologist Kearney (1984) proposed a complex framework in order to study worldviews. He suggested that a human worldview is a collection of basic images and assumptions that an individual has regarding reality, which provides a coherent but not necessarily accurate way of thinking about the world. He argued that there are three problems to deal with when studying worldviews:

- What are the universal characteristics of a human worldview?
- How do images and assumptions form within these characteristics?
- What are the influences of worldview on social and cultural behaviour?

He further argued that in order to study worldviews, one must identify some common characteristics of worldviews. Kearney (1984) identified seven characteristics that are common to all worldviews. These ‘*worldview universals*’ are: self, non-self, relationship, classification, causality, time and space. He also stated that although

these '*worldview universals*' are common cognitive categories of human worldviews, their content is different from person to person. According to Kearney's model, self and non-self are the most basic characteristics of human worldview. Self is the ultimate reference point from which everything in the universe is viewed (Coburn, 1991). Kearney (1984) explained that some individuals might associate self with the physical body; conversely others may distance themselves from the body and associate the self with entities such as the soul. After self and non-self: relationship, classification and causality 'universals' are the next most basic categories. Individuals classify objects and concepts into many different groups and the way that they do this is part of their worldview. According to Kearney (1984), individuals may see non-self, or parts of it, as, existing to be maintained, obeyed, or acted upon. Depending on one's life conditions, one may see the non-self as threatening and life as a struggle or one may see the non-self as peaceful and life as fulfilling.

The causality 'universal' is concerned with how much the self and non-self aspects of a worldview are separated. Kearney (1984) argued that the absence of knowledge about natural laws may contribute to the tendency of attributing internal experience and feelings to the 'self' and to the external world 'non-self' and this may be the source of beliefs in supernatural beings. The causality 'universal' is concerned with how individuals explain the causes of events that are related to how they separate self and non-self. For example the notions of space and time are different among people who live in cities compared with those that live in rural areas. Those who live in urban areas use street or building names rather than co ordinates to find locations. However, people who live in rural areas tend to locate places by using co ordinates, or natural objects such as the stars. Kearney (1984) also stated that geographic locations could also influence the perception of space. Individuals who live in a forest environment have a sight that is short and those that live in a large open environment have sight that can perceive the horizon. Some individuals have a future orientation, and are concerned with future events in their lives. One may have the belief, that in order to be successful in attaining educational goals, one needs to work hard now. Other individuals and cultures may have present or past orientations of the perception of time.

The organization of ‘worldview universals’ within worldviews, are what Kearney (1984) referred to as the *logico-structural* model of human worldview. In this model, the ‘worldview universals’, the beliefs, ideas, and associated actions, organise to create the structure of the worldview. This organization of ‘universals’ strives towards maximum logical and structural consistency within the worldview. It is possible that external inconsistencies with a worldview can result when assumptions or beliefs are found to be incompatible with the reality that the worldview presumably mirrors. Internal inconsistencies can exist in a worldview and these can lead to stress or discomfort and can change the structure of the worldview toward a more consistent and logical one to the individual. Kearney (1984) argued that some people might realise such conflicts and inconsistencies and purposefully take action to modify them.

## **2.62 The Spiral Dynamics Model**

The Spiral Dynamics Model is based on the theory proposed by Clare Graves, (Beck & Cowan, 2006) that there is a structure to how humans’ worldviews develop. The structure is made up of levels, and each level can be described based on “perceptions about life conditions” (beliefs about what the world is like) and “mind capacities” (the mindset required to deal with the world as it is perceived) (National Values Centre, 2001). Graves (1981) identified eight developmental levels of worldviews, each developed as a result of changing perceptions of the world parallel with life conditions that necessitated those changes. According to this model, every level represents a worldview or a belief system and these levels provide the pattern of how humans’ worldviews change. These were labelled with letters; however, later on his colleagues Beck and Cowan (1996) used colour labels. These developmental levels are summarised in Figure 2.

**Figure 2 Clare Graves' model of developmental levels in human psychology**

Graves used letters to represent each level (A-N, B-O, C-P, etc). Later his colleagues Beck and Cowan used colours. (National Values Centre, 2001).					
Value memes Level	Colour	Life Conditions	Theme	Focus	Coping means
<b>A-N</b>	Beige	Based on biological urges/drives; physical senses dictate the state of being.	<b>Survival</b>	<b>ME</b>	<b>Instinctive</b> ; as natural instincts and reflexes direct: automatic existence.
<b>B-O</b>	Purple	Threatening and full of mysterious powers and spirit beings, which must be placated and appealed.	<b>Magical</b>	<b>WE</b>	<b>Animistic</b> ; according to tradition and ritual ways of group; tribal; animistic.
<b>C-P</b>	Red	Like a jungle where the tough and strong prevail while the weak serve; nature is an adversary.	<b>Power</b>	<b>ME</b>	<b>Egocentric</b> ; asserting self for dominance, conquest, and power; exploitive; egocentric.
<b>D-Q</b>	Blue	Controlled by a higher power that punishes evil and eventually rewards good works and right living.	<b>Truth</b>	<b>WE</b>	<b>Absolutistic</b> ; obediently as higher authority and rules direct; conforming; guilt.
<b>E-R</b>	Orange	Full of recourses to develop and opportunities to make things better and bring prosperity.	<b>Achievist</b>	<b>ME</b>	<b>Multiplistic</b> ; pragmatically to achieve results and get ahead; test opinions; manoeuvre.
<b>F-S</b>	Green	The habitat wherein humanity can find love and purposes through affiliation and sharing.	<b>Humanistic</b>	<b>WE</b>	<b>Relativistic</b> ; respond to human needs; affiliative; situational; consensual; fluid.
<b>G-T</b>	Yellow	A chaotic organism where change is the norm and uncertainty a usual state of being.	<b>Integrative</b>	<b>ME</b>	<b>Systemic</b> ; functional; integrative; interdependent; existential; flexible; questioning; accepting.
<b>H-U</b>	Turquoise	A delicately balanced system of interlocking forces in jeopardy at humanity's hands.	<b>Holistic</b>	<b>WE</b>	<b>Holistic</b> ; experiential; transpersonal; collective consciousness; collaborative; interconnected.

Each level in Figure 2 represents a set of beliefs, a value system, and a worldview. The third column indicates how people perceive life in each level and the fourth column indicates how people tend to behave in order that they can cope with their life conditions in each level. The model attempts to characterise the types of beliefs and the likely attitudes within a worldview level. These levels represent the peak states in a developmental continuum of worldviews. A person may have beliefs that

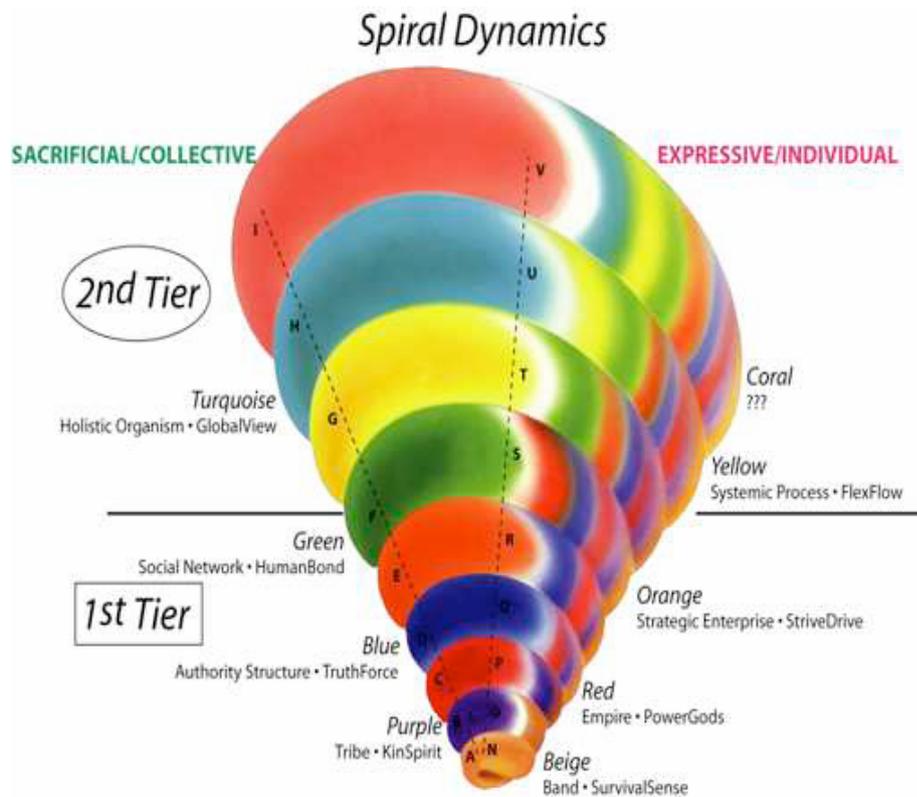
are consistent with one or more of these levels and the degree of how much a person's beliefs align with the characterisation of these levels may vary. These levels are not enough to describe a human's worldview; rather human worldviews can be described with a combination of these levels, some being more important and central than others.

Graves (2005) suggested that if a person's belief system (worldview) were in conflict with his/her reality of living, this would create stress. The person may then move away from their worldview and adopt different beliefs that would allow the person to deal with the realities that surrounded them and thus reduce the inevitable associated stress, induced by the conflict.

Beck and Cowan (1996) continued to use this theory for analysing people's worldviews. They called the theory "Spiral Dynamics" and their efforts made this theory more popular. In their book, *Spiral Dynamics*, Beck and Cowan (1996) provide a very complex explanation of the nature of worldviews. They cited the work of Csikszentmihalyi, (1993) who used the word *meme*; meaning "a unit of cultural information such as political ideology, a fashion trend, language usage, musical forms" Beck and Cowan, (1996, p. 30), as they tried to identify the origins of human behaviour. He used the "gene analogy" to explain the idea of memes. Very much like human genes that make up the DNA molecule, memes replicate and pass from one generation to another. Based on this analogy, Beck and Cowan proposed the existence of what they called "*value memes*" which are the organising principles for the memes. Values memes represented the cultural DNA. Each individual values meme had its own organization that attracted and bonded pieces of cultural information (memes) and other kinds of ideas in cohesive packages of thought, these "value memes encoded instructions for our worldview assumptions about how everything works, and the rationale for decisions that we make" (Beck & Cowan, 1996, p. 32). They called each level in Figure 2 a '*value meme*', and argued that humans' worldviews are made up of these value memes. Every person had the potential to awake different value memes as life conditions change, while maintaining all of the other value memes they value. According to the model of Spiral Dynamics in Figure 3, the complexity of value memes increased from beige to

turquoise and there is a zigzag pattern of express-self and sacrifice-self theme in the value meme. Beck and Cowan used a growing spiral analogy to describe the growth in complexity and sophistication of the value memes from beige to turquoise. Each successive level includes and transcends the previous levels hence becomes larger and more complex. This is how the name Spiral Dynamics was derived.

*Figure 3. The emerging model spiral dynamics (Beck & Cowan 2006), page 196.*



### 2.63 Value memes (vmemes)

A value meme can be viewed as the basis for a worldview, level of psychological existence, way of thinking, an organising principle or way of living (Beck & Cowan, 2006).

Value memes ‘vmemes’ have the following features:

- They coexist within worldview profiles.
- They manifest the core intelligences that form systems and impact human behaviour.

- They contain the basic package of thought, motives, and instructions that determine how we make decisions and prioritise our lives.
- They express both healthy and unhealthy qualities. Healthy memes are those that allow or facilitate the positive expression of other values memes. However, often values memes become malignant, closed, locked in, and repressive, imposing a type of guardian mentality.
- They attach themselves to those ideas, people, objects, and institutions that allow them to reproduce and radiate their core messages.
- They can brighten or dim like a lamp as life conditions change. They have strong cybernetic (able to read feedback and adjust) capacities and are driven to preserve their core intelligences and proliferate their influences wherever they find mind openings.
- They are structures of thinking. They determine how we think or make decisions in contrast to what they believe or value. Graves (2005) referred to them as schemas, containers in which contents (themes and memes) could be placed.

#### Value memes principles

- Humans possess the capacity to create new value memes.
- Value memes may emerge, regress, and fade in response to life conditions.
- They zigzag between sacrifice self-themes and self expression.
- They cluster in tiers of six along the spiral.
- Value memes emerge along the spiral in a kind of wave like motion.
- Spiral through levels of complexity.

Grave's levels of belief systems (or *value memes*) can be explained based on the model Spiral dynamics (1996) in the following way.

#### **2.64 First Tier Value Memes 'subsistence' [vmeme]**

*Purple 'magical' safety value meme, (B-O, animistic):*

The purple value meme is the first sacrifice-self orientated values meme, which awakened when human beings first started to develop social relations and became curious about nature and the world. People find safety within the communities that

they live in, where people look out for each other. Spiritual beliefs, traditions, and rituals are valued. In the present world, people who live in small townships, ethnic neighbourhoods, or tribal communities may have values at this level. The world is seen as a mystical and sometimes threatening place. Marriage and family relations are valued in this level and people may as a consequence be committed to home and extended family relations.

Belief characteristics:

- Observe rites, rituals, seasonal cycles and tribal customs.
- Sacred objects, places, memories and events are preserved.
- Allegiance is shown to elders and customs.
- Ethnic tribes are formed.
- The world is seen as being composed of good and bad.
- Rules are black and white.
- Magical spirits determines events.

Assumptions and implications of leadership:

- Employees give their lives and souls to the employer or parent like organization.
- Individuals are bonded to their group.
- Individuals follow their respective leaders willingly.
- Self is sacrificed without question for the group.
- Change requires acceptance of elders.
- Ritual change is accompanied with symbols and emotion.
- The vmeme exists deeply within each of us and surfaces in times of strife and uncertainty.
- Individuals are nurtured through rituals, usually such as rites of passage.

Red 'Impulsive' power value meme, (C-P, egocentric):

The red value meme is the first clearly express-self orientated values meme and an egocentric attitude is valued at this level. This value meme is common in crime organizations, street culture, and populations from emerging nations with a large BO (purple) subsystem. It emerges from societies in which purple values meme is

dominant and where there is relative safety, allowing people to express themselves and be creative. The world is seen to be like a jungle where the strong dominate and the weak serve, therefore power is desired. People who value this value meme tend to assert for dominance. Red value meme has a present time orientation. What matters now is important and the future is not real. Children, who seek attention from adults and expect their demands to be met immediately, largely operate at this level.

Belief characteristics:

- The world is seen like a jungle that is full of predators.
- Dominates others especially aggressive people.
- Seeks immediate gratification.
- Expects respect and attention.
- Defends reputation and avoids shame.
- Pleases self and claims to be free from domination from others.
- The world is seen as those that have and those that have not.

Assumptions and implications of leadership:

- Employees need to be dominated by strong leadership and such is rewarded.
- Employees will accept their places as long as their basic needs are secured.
- Successful individuals have their status because of who they are.
- Individuals that are considered as the have-nots have no right of redress, as they deserve their status.
- Everyone has his or her price and no one can be trusted.
- Change requires firm mandates from leaders who talk tough.
- Employees require the need to know what is in it for them to accept change.
- Individuals are nurtured by the celebration of conquest.

Blue 'Purposeful' truth value meme, (D-Q, absolutistic):

The blue value meme is sacrifice-self orientated and it emerges in conditions of chaos created by conflicts, deprivation, and suffering with a desire to bring discipline, order through religion, culture, or nationalism. People who value the blue value meme tend to have a future time orientation; they believe that one needs to sacrifice now by obeying the rules and authority to get rewards later. In this level, the

world is seen as an orderly place where there is meaning and purpose under the control of a powerful authority. This is why in this level respect for authority, loyalty, patriotism, and rules are valued. A life style based on “one true way” and “going by the book” in dealing with problems or issues in life is very characteristic of this values meme. Therefore, people are expected to accept the judgment of the authority (politicians, parents, and religious leaders) and play their roles to maintain a healthy society. Strict religious communities, highly structured societies, or highly bureaucratic organizations are places where this values meme is common.

Belief characteristics:

- All life is predetermined, by an all-powerful and all-knowing God.
- Individuals sacrifice self for the cause or truth.
- A code of conduct is based on absolute principles.
- Group values are seen to be of importance as opposed to the values of self.
- Future rewards are achieved through living righteously.
- Character is built on laws, discipline and morality.
- Social order is rigid.
- Symbolic meaning is seen as inseparable from symbol itself.
- In states of emergency or chaos provides order.

Assumptions and implications of leadership:

- One must work for the glory of the one true way.
- Employee’s work best when they are told how and what to do.
- Individuals are simply seen as cogs in a large system, where they fulfil roles that have been predestined.
- Higher power rules by rightful compliance, not by fear.
- Meaning of life is obtained from performing ones duty and receiving punishment for not doing so.
- Employees owe organizations their loyalty as it is the organization that provides the employee’s well being.
- Change requires a new system to be embraced, a new cause and a refreshed purpose.

- Change must be seen to be consistent, sanctioned, and orderly and should also honour the past.
- Observances of religious, national or patriotic appeals should be undertaken.
- Length of service should be respected and honoured.

Orange 'Achievist' strive value meme, (E-R, Multiplistic):

The orange value meme is express self-orientated and in this level the world is seen as a place full of opportunities and resources. Capitalist values, technological advancement, economic power, and competition are valued within this level. Business orientated communities, companies, and economically advanced or advancing nations would be places where this values meme would be common. In this level priority is given to self-advancement rather than the community, bureaucracy and heavily structured systems are not valued. This values meme emerged with the Enlightenment movements in Europe after the Middle Ages as result of sacraments, formalities, and rigid social structures. People who value this value meme have an entrepreneur perspective in life and for them manoeuvring within the rules of an organization or a system to get ahead and testing available options in life to reach a goal are common attitudes.

Belief characteristics:

- Independence and autonomy are often sought.
- Seeks the truth on an individual basis. Thoughts are reflective on and questioning an individual's values and belief.
- Objective methods are used to obtain and communicate knowledge.
- Achievement, advancement and change are sought out.
- Mankind makes progress through knowledge of nature and seeking optimum solutions.
- Earth's resources are manipulated to create wealth and prosperity.
- Science dominates the economy, human events and natural phenomena.
- The human race prospers through competitiveness, and the use of technology.
- Materialistic gain is often sought.

Assumptions and implications of leadership:

- Those that excel in fields such as business should be recognised for their achievements and should receive material rewards.
- Competitiveness should improve productivity and facilitate growth.
- Tried and tested methods are regarded as best, however these can be improved.
- Employees want to advance themselves.
- Success is immediate and rewards supersede this.

Green 'Communitarian' humanistic value meme, (F-S, relativistic):

The green value meme has a sacrifice-self orientation with the goal of creating prosperous human communities. Concern for human feelings and needs, interdependence, and human relations are given priority in this level and the world is seen as a habitat where peace and prosperity must be achieved and maintained. The roles of international or charity organizations that try to improve human rights and life conditions would be valued within this value meme. Relativism, post-modernism, multiculturalism, consensus building, human rights, equality, liberalism, and well being for all are respected ideas within this value meme.

Belief characteristics:

- The earth's resources should be equally shared amongst mankind.
- Humans should be free from divisiveness and greed.
- Rationality is superseded by subjectivity, reality is seen as social construction
- Harmony amongst peoples is sought.
- Relationships and communication is paramount.
- Authoritarian ways are negated, and egalitarian ways are sought.
- Empathy of others is often sought.
- Knowledge is seen as truth in context.
- Pluralistic values and systems are often supported.
- A systems approach is often employed as a way of thinking and problem solving.
- The next level of consciousness is about to appear.

Assumptions and implications of leadership:

- Acceptance is required and feelings of belonging are sought.
- Employers and organizations are seen as being responsible for its community's general well being.
- Competitiveness is regarded as being unproductive, as opposed to a sharing participation.
- Emotional support is often sought.
- All members of a group are valued and active participation is encouraged.
- A caring society is valued.

## **2.65 Second Tier Value Memes [vmeme]**

According to Beck and Cowan (2006) these particular values memes provide a way of thinking that can facilitate the basis of what they referred to as 'true integral' leadership.

*Yellow 'Integrative' systemic value meme, (G-T, systemic):*

The yellow values meme has an express-self orientation. People who value this value meme view the world as an intriguing, complex, and interactive system, which is under threat from humans' limited vision, namely the previous values memes that are responsible for the problems such as, fundamentalism, violence, terrorism, pollution, global warming, and wars. In this level, people tend to have a strong sense of independence, individual competence, and self-worth. If required, they take action to fix the world's problems, since those problems also affect them. They are not driven by fear, compulsiveness, or loss of status. While the green value meme has the goal of reaching prosperity for all human beings and consensus and relativism are valued, people who do not share the ideology of the green value meme are not accepted within communities where green value meme is valued. However, in the yellow value meme, acceptance and harmony are peripheral to happiness in the sense that "what others think is interesting but not critical". They may express discomfort at over-simplified models and failure to recognise the true complexity of issues at hand. Systemic long-range thinking, questioning, and accepting differences are common attitudes among people who value this value system.

Belief characteristics:

- Includes individuals that can accept paradox and contradictions.
- Life is seen as consisting of natural systems, forms and hierarchies.
- Existence is valued over any form of materialism.
- Functionality, flexibility and spontaneity have the highest priority.
- The discovery of self and personal freedom without harm to others or self-excesses is seen as being important.
- Knowledge base and competency should dominate rank, power or status.

Assumptions and implications of leadership:

- Flexible working hours, remote employment, and interchanging jobs or roles are used to avoid over managing.
- Personal freedom inspires individuals with emphasis on getting things done without specifying how they must be actually achieved.
- Greater pay incentives or punishments should not be used as motivation aagers.
- Motivation should construe understanding and further professional development and learning.
- Change is seen as being inevitable in organizations.
- Employees require access to adequate resources, such as tools, materials and information.
- Employees should be employed in roles that they naturally fit.

*Turquoise 'Holistic' global, value meme (H-U, holistic):*

The turquoise value meme is sacrifice-self orientated and in this level the world is viewed as a single living organism and all life is valued as a whole. People who value this value meme tend to be conceptual, value learning through experience, and search for meaning and purpose in existence. This search for meaning goes beyond survival, obedience, competition, peace, and reaches spiritual levels. This level of thinking is globalistic, extending across politics, religion, and vested interests. People who value this value meme have more of a community orientation, but they see community as a whole earth with all life in it. They also tend to have a more holistic view of issues or problems.

#### Belief characteristics:

- The world is seen as a single organism, which is dynamic with a collective mind.
- Less is seen as actually more in a minimalist world.
- The self is seen as not only being separate and distinct but also being part of a blended compassionate whole.
- All living entities are seen as being important and are required as an integrated system.
- An ecological awareness of the oneness of all life on the earth is espoused.
- Holistic thinking and cooperation is expected amongst individuals.
- Believes in the evolution of the spirit as belonging to an ongoing conscious system.
- The universe is seen as a single entity of balanced interlocking forces.

#### Assumptions and implications of leadership:

- All work should be meaningful for all.
- Spiritual bonds tie people and organizations together.
- Information and experience should complement each other.

The adoption of these value memes by humans may vary in intensity and complexity. This means that while some people may have an open mind for growth and change, others may radicalise in one of the value memes. Depending on life conditions, worldviews may grow or change up the levels, from beige to turquoise, or may grow down the levels, or mature within a level itself. If a person's worldview develops towards more complex value memes, the previous value memes will not disappear. They will remain within the profile of the person's worldview and in different life conditions; different parts of people's worldviews may also become active. An example would be if a person was in a sports activity, the red value meme might become dominant while in community relations the green value meme may become the dominant (Beck & Cowan, 2006).

## 2.66 Integral leadership approach

The yellow and turquoise value memes have been suggested in the research to provide the required perspective for leadership in organizations (Beck & Cowan, 2006). They are purported to provide the correct types of questions regarding people, motivation, learning and communication:

- What is the nature of the people that we are managing or employing?
- What types of systems of managing, motivation, or training will be most ‘congruent’ with people and the work that has to be done?
- What makes life conditions unique?

The authors Beck and Cowan (2006) warn that such an approach of profiling potential leaders and workers for organizations needs to be implemented with care, concern and compassion. They contend that individuals are not to be judged as being inferior or superior. Each person is seen as being unique, individual and vital in an organization.

It is possible to argue from the literature that the differences between the terms, values, beliefs, and memes or the terms ‘*value memes*’ and belief systems are not very clear. However, the Spiral Dynamics model provides a vision of possibilities of potential change, the directions where change may occur, and how.

The Spiral Dynamics model purports that change in one’s life such as growing up, life events that have significance, education, socio economic status, or changes in society are some of the causes that help to shape worldviews.

Beck and Cowan (2006), explained that there was an historical basis for the development of the value memes. As existential needs of human beings changed, so did their understanding of the world, the problems they dealt with, and the solutions they produced. Throughout their evolution, as humans solved one set of problems, another set of problems appeared. In the earliest periods of human development, what was important was survival. Therefore, the beige value meme is the earliest form of human worldview in which natural instincts and reflexes direct individuals to satisfy their biological needs and urges. As people started to live together in groups

and social relations started to emerge, the purple value meme awakened, this views the world as a physically challenging place to live. Therefore, staying together within a group and sacrificing for each other is valued as a way to survive. At this level spiritual beliefs start to emerge, as the world appears mystical and magical to individuals. When people achieve relative safety within their communities and resolve their security-based problems, they create new problems for themselves. At this stage humans want to explore the world, be independent, and assert themselves as individuals. This is also the level where egocentrism, desire for power and dominance become important. As a result, chaos created by humans with conflicts of power, and this is when the blue value meme emerged. At the blue level, people seek to bring order through religion, culture, or nationality and hence what becomes important is to protect the values, traditions, and beliefs within a society. Orange value meme emerges when people want to free themselves from the constraints of society. At this stage, entrepreneurship, technological advancement, success, material gains, self-interest, and competition are valued. When societies reach economic success, the green value meme emerges out of the concern for the well being of the whole community. At this level relativism consensus, and equality are valued and priority shifts to protecting human needs in general. After the green value meme, the yellow value meme emerged recently in human history. Yellow worldview values broad perspective views and tries to understand the complexities within systems. Instead of manoeuvring within the existing system, fixing the system itself is the general attitude for the yellow worldview. A person at this level may take action to change the environment for the better with a “self” focus. A strong sense of self-confidence and self-efficacy are characteristics of the yellow thinking. At this level, belief systems of others are better understood and respected as long as they do not appear harmful. The turquoise value meme is the system that has recently appeared. This system goes beyond previous value meme and values all life as a whole without geographic, cultural or any other form of separation.

Beck and Cowan (2006) argued that there was a significant difference between the green value meme and the yellow value meme in terms of abilities to make decisions and understand the complexities of the world and other value memes. Therefore, they labelled the first six value memes as first-tier (beige to green), while yellow and turquoise values memes are labelled as second-tier. They also explained that the first-

tier memes represent evolution of humans from their beginnings to where they are now with the green value meme being the flagstone of that evolution. They also proposed that today humans, whose most needs are met and who solved most of their existential problems are now able to look at world and life with more capable and sophisticated perception that represent the yellow and turquoise thinking. The model purports that change in one's life such as growing up, life events that have significance, education, socio economic status, or changes in society are some of the causes that help to shape worldviews (Beck & Cowan, 1996).

## **2.7 Summary**

Fullan, (1996) presented an argument that schools and teachers need to re-examine their beliefs and value systems, and work towards a 'shared institutional value system' that is considerate of both supporting and valuing others in schools. Only then, he suggested might we come some way to alleviating this 'condition'. Teacher beliefs are shown in the literature to be important because these mainly determine the behaviour of teachers.

The theoretical perspective of this study is based on the notion that the beliefs and value systems that an individual holds are attached to a larger belief system called a worldview. A worldview comprises the fundamental beliefs a person holds which he/she refers to as presuppositions (central beliefs) and then makes a distinction between presumptions and ordinary beliefs (Cobern, 1991). Worldviews are shaped by the beliefs that form from the fundamental organization of the mind, and knowledge is filtered through worldview before it is either accepted or rejected, or modified (Kagan, 1992). The worldview framework perspectives of Kearny and Graves provide a vision of possibilities of potential change. The model constructed by Graves purports that change in one's life such as growing up, life events that have significance, education, socio economic status, or changes in society are some of the causes that help to shape worldviews

## **2.8 Research Focus and Research Questions**

To recapitulate the research focus of this study was to explore and investigate the use of Graves (1981) and Beck and Cowan's (2002) spiral dynamics model as a way to understand teacher beliefs, and value systems from a worldview perspective. The model was chosen because it provides a holistic framework for understanding teachers' beliefs and value structures. It was also envisaged that the model might be useful for the reconciling of teacher personal beliefs with the reality of teaching, thus reducing teacher burnout. The research objectives were therefore:

1. to examine the individual experiences, challenges and rewards of teaching in a small rural school;
2. to ascertain whether there was a relationship between teacher stress, burnout and prevailing teacher worldviews; and
3. to investigate the ways in which teachers' prevailing worldviews interact with their work environment, based on an understanding of teacher's beliefs and value systems from a worldview perspective.

With these objectives in mind it seemed that the issues of congruence and possible incongruence between individual teachers' beliefs and their school administrators' beliefs regarding educational issues were to be an important consideration. Research has reported relatively few dimensions of personality traits that demonstrate a systemic relationship with work related stress (Mearns & Cain, 2003). The research that has examined personality traits in connection with stress and stress-related illnesses, have focused on Type A behaviour patterns. Personality traits such as impatience, hostility, irritability, competitiveness, and achievement strivings have been associated with Type A behaviour patterns (Burns & Bluen, 1992; Jex, Adams et al., 2002; Jepson & Forrest, 2006). An alternative approach is to examine the beliefs and value systems held by teachers, in order to understand their potential to change and respond to stressors in their environment.

### **2.8 Primary Research Question**

1. *Primary research question: to what extent are teachers' views regarding education congruent with their schools administrators at the case school?*

As the design of the study progressed, the primary research question was supplemented by the formation of more specific subsidiary research questions.

### **2.81 Subsidiary research questions**

Regarding the teachers and administrators:

2. *What are the world views of the participating teachers and administrators?’*
3. *How do teachers and administrators manage situations of crisis and conflict?*
4. *How are participating teachers and administrators beliefs about educational issues related to their worldviews?*

In chapter 3 the design and methodology of the study are considered as is a review of literature regarding the various research approaches of qualitative, quantitative, and mixed methods that are used in the pursuit of new knowledge.

## **CHAPTER 3**

### **DESIGN OF THE STUDY AND METHODOLOGY**

#### **3.0 Overview**

This chapter provides a review of literature related to theories of approaches to the research process; research paradigms are discussed, as are the associated research terminologies. The chapter also establishes the design and methodology used in the study. Finally, the rationale for adopting a mixed method research approach with an interpretive bias is provided.

#### **3.1 Statement of the Problem**

Many teachers find the demands of being a professional educator in today's schools difficult and at times stressful. When work stress results in the phenomenon known as teacher burnout, it can have serious consequences for the health and happiness of teachers, and also the students, professionals, and families with whom they interact on a daily basis.

It could be that the magnitude that teachers experience stress or burnout through cognitive dissonance is directly proportional to the number of discrepant cognitions and inversely proportional to the number of consonant cognitions that a teacher has. The relative weight of any discrepant or consonant element is a function of its importance. Dissonance is experienced as an uncomfortable, cognitive state. Teachers are therefore, motivated to reduce any dissonance that they experience, with the ultimate action of the teacher leaving the profession (Harmon-Jones & Mills, 1999).

#### **3.2 Rationale for the Research Method**

This chapter commences with a review of related literature of philosophical perspectives of research in particular on the interpretive and positivist paradigms of research. It also considers the merits of the relatively new 'third wave' research movement of employing a mixed method research paradigm. The research problem

and specific research questions are provided, as is the argument for adopting a mixed method. A description of the research setting and research participants are described, as are the case study methods. Descriptions are also provided of the methods of the research phases of the quantitative and qualitative aspects of data collection, as are descriptions of the Maslach burnout inventory, and values profile test. Quality control and ethical aspects in respect to the research subjects are also considered in an effort to ensure that no harm occurred to the research subjects whilst engaged in the actual process of the study.

An issue that faces all researchers, and in this instance, the author of this particular study is that concerned with how to document a convincing methodology. Therefore, before the researcher decides on employing a particular relevant research paradigm, and conceptual framework for the methods, the tradition of interpretive research requires an examination.

### **3.3 Philosophical Perspectives of Research**

All research according to Myers (2004) irrespective of whether it is quantitative or qualitative in method, should always be based on an assumption regarding what is considered by a particular researcher as being 'valid' and which method/s are to be employed. He argued that the most pertinent philosophical assumptions were those that related to what guided research, which he referred to as its underlying epistemology. Epistemology refers to assumptions regarding knowledge and how knowledge can be obtained.

### **3.4 Research Paradigms**

According to Burns (1997) a paradigm was described as a systematic investigation or inquiry where data is collected, and interpreted in some way to effect an understanding, description, prediction or control of an phenomenon. The theoretical framework has also been referred to as a research paradigm and influences the way knowledge is interpreted and studied. The choice of paradigm sets the intent, and expectations of research. There is no basis for choices regarding methodology, methods, literature or research design without first nominating a paradigm (Bogdan & Biklan, 1998; Mertens, 2005; Mackenzie & Knipe, 2006). The literature has not

always discussed paradigms some have only made [passing] comments at the latter stages of research designs while others have not made any reference at all. The actual term 'paradigm' has been loosely defined as a collection of related assumptions, propositions, concepts that orient thinking (Bogdan & Biklan, 1998). It has also been suggested in other research that it is the philosophical intent for undertaking a particular study (Cohen, Manion et al., 2004). A number of definitions and terms regarding the many available research paradigms have led to much confusion especially for researchers. However, some commonly used paradigms have been discussed in the literature such examples have included: positivist Maxwell and Delaney (2004); post positivist Creswell (2005); interpretivist Guba (1990); pragmatism Burke and Onwuegbuzie (2004); and critical theory (Burke, Johnson & Onwuegbuzie, 2004; Somekh & Lewin, 2005; Mackenzie & Knipe, 2006).

### **3.41 Post positivist and positivist paradigm**

Positivist research has often been referred to in the literature as scientific method research and is based on a rationalistic, and empirical philosophy that reflects a deterministic philosophy in which 'causes' determine outcomes (Creswell, 2005).

This paradigm was superseded by post positivism in which proponents saw the world as being variable, and having multiple realities. An example to explain this assertion can be seen from the following statement: in that what may be true for one observer may not be necessary true for another. One definition provided for post positivism has been the suggestion that it was intuitive, holistic and exploratory with qualitative findings (O'Leary, 2004). In contrast a more widely used definition of both positivist and post positivist research contends that these paradigms have been aligned with qualitative methods of data collection and analysis (Mertens, 2005).

### **3.42 Positivist research 'validity'**

The literature has suggested that proponents of quantitative method research commonly referred to as positivist research, believes that social observations should be treated as entities in the same way as physical phenomena are treated. Furthermore, some have contended that an observer is separate from the entities under observation. Therefore, they have argued that inquiry should be objective. In

other words, desirably context free generalisations, free from time should be sought in research settings. Educational researchers should eliminate their biases and should endeavour to remain detached emotionally with objects under study. These researchers have also called for empirical justification of stated hypotheses, involving a formal research design process (Guba & Lincoln, 1989; Maxwell & Delaney, 2004).

### **3.43 Weaknesses and strengths of Positivist/quantitative research**

The strengths of positive quantitative research include: being useful in validating and testing constructed theories and how phenomena may occur. It is useful in hypothesis testing and can be used to generalise research findings when data is based on sufficiently sized sampling. It is also useful for obtaining data that allows quantitative predictions and useful when studying large population of subjects. The actual analysis of data is less time consuming such as when using statistical software. Some methods employed such as telephone interviews and questionnaires are relatively less time consuming. Results are relatively independent of the researcher and are of higher credibility through the elimination of confounding variables. Quantitative research provides precise numerical data and is also very useful for studying large numbers of participants.

Conversely, quantitative research may not in some instances reflect local understanding or theories. Findings can be too abstract and general for local situations and or individuals. Phenomena might be missed that occur because of the focus on a hypothesis or theory. Knowledge gained may be in some instances deemed to be too abstract and general for direct application to local contexts.

### **3.44 Interpretivist and constructivist paradigm**

This particular paradigm has been suggested from the literature as evolving out of the philosophy of phenomenology and hermeneutics (citing Mertens, 2005; Mackenzie & Knipe, 2006). The interpretivist/constructivist approaches have been described as having the intention of the world of human experience (Cohen, Manion et al., 2004). Reality is socially constructed (Mertens, 2005). Constructivist researchers have been shown to employ qualitative data collection methods and an analysis that often has

utilised a combination of both quantitative and qualitative methods referred to in the literature as mixed methods. Often quantitative methods have been used to support or expand upon qualitative data and improve the description of research results.

### **3.45 Interpretive research ‘validity’**

Interpretive method proponents who have been shown in the literature to reject what they have often referred to as positivism (Guba, 1990; Creswell, 2005). They have countered the claims of the positivist purist’s stating that multiple-constructed realities abound, that time and context free generalisations are neither possible nor desirable. They have also asserted that all research to some degree is value-bound, in other words they have argued that it is impossible to differentiate causes and effects fully, and the known and knower cannot be separated due to the assertion that the subjective knower is the only source of reality (Guba, 1990; Creswell, 2005). Purists have also been characterised as disliking detached passively written research, preferring detailed, rich, empathic description, written informally.

### **3.46 Weaknesses and strengths of Interpretive/qualitative research**

The strengths of positive qualitative research include: Data is based on subjects’ own meaning and is very useful for studying a small number of subjects and in case studies. Individual detailed case information is produced that can be used for the understanding and thick description of personal experience of phenomena such as values and beliefs. The researcher can be responsive to local conditions and situations. Data are often collected in a naturalistic setting.

Explanatory theory can be used regarding the understanding of phenomena and researchers can be responsive to change during the conduct of a study. This is useful because it may determine the condition of a particular event.

Conversely, interpretive research can be biased or influenced by the researcher’s idiosyncrasies. Data are often very time-consuming to collect and analyse. It is often much more difficult to test a hypothesis and it is also difficult to make predictions. Knowledge is only valid in the context of the setting and may not generalise with other subjects or groups.

### **3.47 Research paradigm debates**

Research has shown in the literature that advocates of positive and interpretive research have ardently engaged in research paradigm debates, and purists have emerged on both sides. Both types of proponents have considered their paradigms as the ideal for research, they have also indicated and advocated the in-compatibility thesis Howe (1998), which proposes that positivist and interpretivist research paradigms, including methods, should not be mixed as they measure two different things.

### **3.48 The light of reason**

Fortunately, many positivist and interpretivist researchers have reached some basic consensus on several philosophical disagreements (Burke, Johnson & Onwuegbuzie, 2004). Agreement has been achieved in the following important issues: What appears reasonable can vary across individuals and what an individual/researcher notices and observes is affected by that individual researcher's background, experiences, knowledge and beliefs. Observation is not nor ever will be a perfect window into 'reality'. It is reasonable to assume that more than one theory may fit a single set of empirical data. A hypothesis cannot be tested fully in isolation because any test that is designed will always be made on the basis of various assumptions (Burns, 1997).

Therefore, a hypothesis will always be embedded in a holistic network of beliefs, and alternative explanations are always possible. Researchers have and always will be embedded in cultures and communities that affect their attitudes, values and beliefs. Values affect what we choose to investigate, what we perceive, and how we interpret what we perceive. Thus, researchers can never be value laden free (Burke, Johnson & Onwuegbuzie, 2004).

### **3.49 Pragmatic paradigm**

This paradigm was described as not being committed to any one system of reality or philosophy. According to Creswell (2005), the pragmatist researcher should focus on the 'what' and 'how' of the research problem. Pragmatism was seen as the paradigm

that could provide the underlying philosophical framework for mixed methods research (Somekh & Lewin, 2005).

The pragmatic paradigm places the research problem/question centrally and applies approaches to the understanding of that problem. When the research question is placed centrally, data collection and its analytical methods can be chosen that are more likely to provide insights into the question without regard to any philosophical loyalty to a particular paradigm. This notion seemed to fit well with the researcher's own stance regarding this study.

### **3.5 Qualitative or Quantitative Methods 'Confused'**

The terms in the literature, qualitative and quantitative, have often been used in two distinct discourses. One discourse has seen the terms used to describe research paradigms and a second has been associated with referring the terms to actual research methods. Some researchers have referred the terms to distinctions about the nature of knowledge: the purpose of research and how one comes to know the world. Discourse at another level has described the terms in reference to research methods, in how data are collected, analysed, and how generalisations are derived (Mackenzie & Knipe, 2006).

Informal references to researchers being either quantitative or qualitative and research as being quantitative or qualitative have in the literature added to confusion to researchers. Research texts have also been shown to utilise these terms within titles, suggesting a purity of research method, which has been seen in the literature as being impossible in social contexts (Mackenzie & Knipe, 2006). However, O'Leary (2004) argued that the terms could be considered as another way of thinking. He proposed that the qualitative and quantitative terms should be used to define the types of data and their modes of analysis. Qualitative data should be seen in the representation of words, thematic expression and possibly pictures. Conversely, quantitative data should be represented through empirical methods using statistical analysis. The definitions seemed to suggest that the terms qualitative and quantitative referred to actual data collection methods, its analysis and reporting modes as

opposed to theoretical approaches to research. Confusingly, other research literatures have referred to the terms as describing research paradigms.

As discussed earlier in this chapter, the term ‘paradigm’ has been reserved for research philosophical intent or the underlying motivation and theoretical framework of a researcher.

### **3.51 The Argument for mixed method research**

According to Burke, Johnson and Onwuegbuzie (2004) mixed method research was described as the ‘third wave’ or third research movement that provided an alternative to the paradigm wars. The authors suggested that it offered a logical and practical alternative. Its advantage was seen in its eclectic approach to method selection and the ‘thinking’ regarding the direction and conduct of research.

Burke, Johnson and Onwuegbuzie (2004) argued that,

*“The most fundamental concern or issue regarding research is the research question and research methods should follow the research question/s in a way that offers the best chance to obtain useful answers. Many research questions and combinations of questions are best and most fully answered through mixed research solutions” (Pg 18 2004).*

According to Burke, Johnson and Onwuegbuzie (2004) the philosophy of mixed method research is to fit together the insights that are provided by quantitative and qualitative method research into a workable solution. The authors stated that they advocated the consideration of taking a pragmatic, balanced and pluralistic research position. In other words, that taking a pragmatic and balanced or pluralistic research position should help improve communication amongst researchers from different paradigms as they attempt to advance knowledge. They also asserted that pragmatism could also help to shed light on how two research approaches could be mixed. Burke, Johnson and Onwuegbuzie (2004) argued further by advocating that the fundamental aspect of research approaches should be mixed in ways that most appropriately provide answers to research questions. However, the researchers warned that although they advocated pragmatism as a research philosophy to help to build bridges between the conflicting philosophies surrounding the purist positivist and interpretivist research communities, pragmatism has some concerns.

Such concerns included: interpretive research may receive less attention than applied research. Although it endeavours to find a middle ground between philosophical dogmatism and to find a workable solution in practice this is difficult because of the longstanding dualism and disagreements between research communities. Agreement has not been historically forthcoming. Some researchers may use pragmatism to get around the many traditional ethical and philosophical disputes (Burke, Johnson & Onwuegbuzie, 2004).

### **3.52 General characteristics of mixed method research**

‘Third wave’ or mixed method research was described as research that researchers combine or mix into a single study. It combined quantitative and qualitative research methods to offer an alternative logical and practical solution to counteract existing paradigm wars. Its logic was seen in its use of discovery of patterns, the testing of hypothesis and theories, and uncovering the best sets of explanations of obtained results (de Waal, 2001).

Although two major mixed method research designs have been shown in the literature to be useful in the development of research studies these being: mixed-model, mono-method and mixed-method studies (refer to Table 1 overleaf).

The point is for an individual researcher to become creative and not limited to these proposed designs. Research designs often emerge during a study in ways that have not been anticipated. Therefore, a tenet of mixed methods research is that researchers should purposely create appropriate designs that best provide answers to their research questions. This position stands in contrast to common approaches seen in traditional approaches where in the past research students have been provided with a selection of designs to choose from. Mixed method research designs also contrast the approach often taken from following the positivist or interpretivist paradigms (Burke, Johnson & Onwuegbuzie, 2004).

**Table 1 Monomethod and mixed-model designs (Burke, Johnson & Onwuegbuzie, 2004), page 21.**

Qualitative Research Objectives			
Collect Qualitative Data		Collect Quantitative Data	
Perform Qualitative Analysis	Perform Quantitative Analysis	Perform Qualitative Analysis	Perform Quantitative Analysis
1	2	3	4

Quantitative Research Objectives			
Collect Qualitative Data		Collect Quantitative Data	
Perform Qualitative Analysis	Perform Quantitative Analysis	Perform Qualitative Analysis	Perform Quantitative Analysis
5	6	7	8

Table 1 above can be used as a template for the design of a mono method or mixed method research design. An example could consist of either a biased collection of qualitative research material with a combined analysis of the research material employing both qualitative and quantitative methods as indicated by the bold text in the table above.

### **3.53 Mixed-models or mixed-methods**

The following is a six-model design mixed method (refer to Table 2). These six designs are referred to in the literature as across-stage mixed-model designs due to the mixing that takes place across the research process stages. An example using this model would consist of the use of a questionnaire that probably would include a summated rating scale in the form of quantitative data collection.

**Table 2 Mixed-method design matrix with mixed method research designs shown in 6 cells, (Burke Johnson & Onwuegbuzie 2004), page 22.**

	Concurrent	Sequential			
Paradigm Emphasis Decision	<b>Qualitative</b> +	<b>Qualitative</b>	————→	<b>Quantitative</b>	Equal Status
	<b>Quantitative</b>	<b>Quantitative</b>		<b>Qualitative</b>	
	<b>Qualitative</b> +	<b>Qualitative</b>	————→	Quantitative	Dominant Status
	Quantitative	Qualitative		<b>Quantitative</b>	
<b>Quantitative</b> +	<b>Quantitative</b>		Qualitative		
Qualitative	Quantitative		<b>Qualitative</b>		

Note: '+' represents concurrent, and → represents sequential, bold words denote high priority or weight.

To construct a mixed-method, the researcher must make two primary decisions:

1. decide if one wishes to work from a dominant paradigm or not; and
2. decide if one wishes to conduct the phases sequentially or concurrently.

In contrast, mixed-model designs were seen to be similar to implementing a qualitative mini-study and a quantitative mini-study in one overarching research study. To be considered a mixed-method design, the research findings should be integrated or mixed. This is commonly referred to as *triangulation* of the data. An example would consist of a qualitative phase to be conducted to inform the latter quantitative phase that may be sequential. Conversely, a quantitative and qualitative phase could be undertaken concurrently with the research findings integrated during the analysis stage of the study.

### 3.54 A mixed-methods research process model

Burke, Johnson and Onwuegbuzie (2004) provided a process in the implementation of their example of mixed-methods research models. These were:

- To determine an appropriate research question.

- The determination of whether a mixed design may be appropriate.
- The selection of method or model of the research design.
- Data collection.
- Data analysis.
- Legitimate the data.
- Complete the research report drawing on conclusions.

Other researchers have suggested four further major rationales for conducting mixed-method research (Greene, Caracelli et al., 1989).

1. Seek convergence and corroboration of results from opposing designs and models that have studied the same phenomenon. 1
2. Seek illustration, elaboration, and clarification of obtained results from one method to another method.
3. Use findings from one method to inform another.
4. Seek to expand the range and breadth of research from using different methods.

The mixed-method research approach seemed to fit well with this particular research study as the researcher was seeking to work from a interpretive research paradigm, with a dominant qualitative method of data collection and wished to complete the study sequentially in phases in a case study in order to determine what the extent of teachers' and administrators views regarding education were congruent with their particular school.

### **3.6 Research Setting and Participants**

The setting for this study consisted of a high school in regional Australia. The 'case' school was a secondary co-educational school that catered for students aged from years 13 to year 17. The school was established in the early 1970's and its student roll has been recently increasing in population. Initially a cohort of 20 high school teachers and 3 administrative staff made up the quota research sample. Attempts were made to ensure representatives of various elements of the total school population. In this particular study, the elements consisted of teachers being chosen from gender and teaching experience. The teachers and 3 school administrators were

asked to complete the Maslach Burnout Inventory of which 15 teachers and 2 administrators completed and returned the survey. This represented a response rate of 73.91 percent. In all, 7 male teachers (77.7 percent) and 10 female teachers (69.6 percent) responded. The average age of the teachers and administrative staff was 44.75 (standard deviation, SD = 14.045), ranging from 25 to 70 years. The surveys were distributed in a sealed envelope and mailed to the targeted school population. These consisted of four teachers and two school administrators. It was envisaged that all administrative staff members of the school would have been participants in the study. However, one administrator expressed concern regarding the confidentiality of the study. She felt that the school would be identified after its completion. The researcher tried unsuccessfully to reassure the potential participant that this would not occur, and he also provided the school administrator with appropriate contact details for contacting the Human Research Ethics Committee. Initially time and commitment proved also to be problematic for most participants in conducting the study. Some teachers were seen to resent having to complete the 'extra' paperwork that would be required. Disappointingly, some teachers did not complete or return the survey, citing that they were just too busy. However, some appeared to be very willing to participate and were quite helpful.

### **3.7 Case Study/Interpretive Approach**

An interpretive case study utilising mixed methods is more conducive to research of a phenomenon in a natural setting, since it offers a means to penetrate situations that are not always susceptible to numerical analysis. Such an approach also contains rich descriptive data, but is more analytic in nature. But it also allows the development of conceptual categories or the opportunity to illustrate, support, or challenge theoretical and atheoretical assumptions held prior to the data gathering (Merriam, 1991).

In this study, the researcher developed inferences, with respect to the participants' value systems, beliefs, and worldviews. Beliefs or worldviews are not observable and they are internally held constructs. Therefore, inferences about individuals' belief, values, and worldviews have to be based on what they say, and how they behave. This creates difficulties in gathering data about people's beliefs because people are

often unable to describe their beliefs or unwilling to talk about their beliefs (Parjares, 1992). Therefore, the choice of interpretive qualitative research also seemed to be supported by this assumption as the most appropriate methodology for this study. Individual case studies were elected for use because they allow for the uniqueness and diversity of different contexts to be described and highlighted (Denzin & Lincoln, 1991). Case studies also recognise the complexity and ‘embedded-ness’ of social truths and represent something of the discrepancies or conflicts between the viewpoints held by the participants (Creswell, 2005). Kenny and Grotelueschen (1980), as cited in Merriam (1991), argued that a case study is also appropriate in those circumstances when information shared by participants is scrutinised on grounds of credibility rather than on its truth or falsity. In large measure, this study focused on teachers’ beliefs and perceptions which could not be assessed with respect to whether they were right or wrong. The case study can be described in yet another way. As Merriam (1991) stated, case studies can be differentiated in terms of their intended final product: such as description, evaluation or interpretation.

The researcher also adapted the methodology proposed by Guba and Lincoln, (1989) in this research for data collection. Guba and Lincoln suggested a hermeneutic dialectic circle as a method for the purposes of evaluation and inquiry, which is a process based on constructivist philosophy. In this process initially knowledge is constructed through interpretation during contact with the first contact with one of the research subjects. Then this interpretation is negotiated with another research subject, which then leads to the modification of the first constructed knowledge. Guba and Lincoln (1990) explained,

*“This process is repeated with new respondents being added until the information being received either becomes redundant or falls into two or more constructs that remain at odds in some way” (p. 152).*

For this study, the researcher selected a multiple case design. This approach was commensurate with the objective to treat each case as a study in and of itself “in which convergent evidence is sought regarding the facts and conclusion for the case” (Chin 1989, p. 57). The researcher also sought themes or patterns that were

consistent across cases. Chin (1989) corroborates this position in stating that “individual cases and multiple-case results can and should be the focus of a summary study” (p. 57).

### ***Participant selection***

Non-probability sampling procedures were used in a manner consistent with naturalistic research design on the basis of LeCompte and Preissle’s (1993) position regarding the appropriateness of such sampling procedures for situations in which there is little known about the phenomenon and from the perspectives of this research that involved the explication of micro social psychological processes. Such purposive sampling was consistent with the researcher’s intent to discover, to seek understanding, and to gain insight into the phenomenon of teacher and administrator worldviews expressed by each individual, and also across individuals in support of the development of emergent patterning theory. As applied in this study, purposive sampling was analogous with criterion based sampling. “Where criterion-based sampling requires that one establish the criteria, bases, or standards necessary for units to be included in the investigation: one then finds a sample that matches these criteria” (Merriam 1991, p. 48), that is, the sample conforms to “the logic of replication” (Yin, 1989). Accordingly, the researcher selected a combined strategy which synthesised typical case selection and reputational case selection which was applied at the beginning of this study. In typical case selection, “the researcher develops a profile of attributes possessed by an average case and then seeks an instance of this case” (Goetz & LeCompte, 1984). For this study, the “recipe of attributes” (Goetz & LeCompte, 1984, p. 77) were followed. Fully qualified high school teachers engaged in classroom practice and full time school administrative staff engaged in school management were chosen. Care was taken to select participants so as to include both genders. During the selection process, and at different stages of the selection process, the researcher engaged in school based observations, and interviews, to verify that the participants met the selection criteria.

### ***Establishing trustworthiness***

To establish trustworthiness is to establish confidence in the accuracy of a study’s findings. To do so is to distinguish a study from other forms of discourse and requires the conduct of research to be disciplined with respect to methodology,

applying the rules of rigour each step of the way. There are, however, a variety of methods that can be applied to the study of a given phenomenon, and with each, rules and procedures for establishing the degree of confidence one can place upon the findings of the study. In this regard, the interpretive bias of this study will require significantly different rules of rigour than will the traditionalist in establishing the trustworthiness of a study. “Because of the assumptions about the nature of reality in an interpretive case study, the traditional concern: for objectivity, validity, and reliability have little relevance for this type of research” (Owens, 1982). Lincoln and Guba (1989) noted that, not having these traditional concerns, interpretive research draws on a combination of criteria-credibility, transferability and confirmability along with corresponding empirical procedures to affirm the trustworthiness of the approach.

### ***Credibility***

The criterion of credibility like internal validity is applied to test the credibility of data. The crucial question in this regard is do the data sources (most often human) find the inquirer’s analysis, formulations and interpretations to be credible (believable)? (Guba & Lincoln, 1989). Do the findings accurately represent the multiple realities of the participants? Lincoln and Guba (1989) described three activities that, when applied, increase the probability of producing credible findings: prolonged engagement, persistent observation, and triangulation. Prolonged engagement is necessary to provide a hedge against distortions generated by both the researcher and the participants from creeping into the data, to learn the context, and to create the opportunity for building trust. Its purpose is to render the inquirer open to multiple influences: the mutual shapers and contextual factors that impinge upon the phenomenon being studied (Guba & Lincoln, 1989).

In this study, the condition of prolonged engagement was met through the conduct of multiple interviews, lesson observations, and through conversations with the participants over many hours. Through persistence, sufficient data was gathered to satisfactorily address the research questions. Persistent observation “adds the dimension of salience to what might appear to be little more than a mindless immersion” (Guba & Lincoln, 1989, p. 304). Also, in this study the condition of persistent observations helped to supplement this strategy. A third method for

enhancing the credibility of the findings was achieved through the application of triangulation. Triangulation was satisfied at the collaboration of the data collected through the application of multiple interviews, lesson observations, and conversations with the participants. However, the possibility of researcher bias contaminating the credibility of the study remained. Researcher bias poses a challenge to the interpretive researcher in that the researcher's own assumptions, world view, and theoretical orientation are acknowledged as influencing the course of the study. The inclusion of member checks helped to reduce this possibility. The member participants in this study were all interviewed in depth at the school. To ensure participants were able to reach agreement regarding the findings about their beliefs rather than having to reach a consensus, the researcher wrote a case study for each teacher based on the completion of a values 'profile' test, lesson observations, casual conversations and a series of open-ended interviews. The provisional results were then given to the teachers and administrators to allow them to respond to the researcher's interpretations and assertions about their beliefs and practices, an agreement was then reached between the researcher's interpretations of the research participants' beliefs and practices, and perceptions of their own beliefs and practices. Also, continual dialogue and the interviews, also contributed to the construction of meaning with each teacher.

### ***Reliability***

"Reliability refers to the extent to which one's findings can be replicated" (Merriam, 1991, p. 170). However in a biased interpretive study it is virtually impossible to imagine any human behaviour that is not heavily mediated by the context in which it occurs. Therefore, instead of reliability the constructs of comparability and transferability are used (Merriam, 1991).

### ***Comparability and transferability***

In this study the researcher strove to demonstrate a sensibility to the participants' unique realities and to the context in which these individuals worked by delineating both the characteristics of the individual and their workplace and the constructs generated.

### ***Dependability and confirmability***

Conceptualised as a substitute criterion for reliability, dependability seeks means for taking into account both factors of instability and design induced change (Guba & Lincoln, 1989). Confirmability, however, assess the accuracy of the data rather than the objectivity of the inquirer (Guba & Lincoln, 1989). To satisfy the need for dependability, the researcher maintained an audit trail which “delineates all methodological steps and decision points and which provides access to all data in their raw and process states” (Guba & Lincoln, 1982, p. 248). To satisfy the need for confirmability, synthesis and discussion was presented in such a manner that the propositions offered can be traced back through analysis steps to original data (Guba & Lincoln, 1982). Although not unassailable, the audit trails means satisfying these conditions.

## **3.8 Data Collection and Analysis**

In this study, the data collection methods consisted of open-ended interviews, classroom observations, casual dialogues and a questionnaire about peoples’ beliefs called the Values Profile Test (Beck & Cowan, 2000).

### **3.81 Phase 1 Values profile test**

The Values profile test was designed to provide information about peoples’ worldviews based on the developmental levels suggested by Clare Graves (1981) and Beck and Cowan (1996). It included 20 items and each item had seven choices representing the belief system of the developmental levels in Grave’s model (see Appendix A).

In the Values Test, 10 items were asked with a positive question root representing acceptance scores and the same 10 items were asked again with a negative question root representing rejection scores for the seven belief systems. 15 points were distributed to the choices for each question and at the end of the test addition of the rejection scores and acceptance scores for each developmental level provided the results. An example test item is in the following (Beck & Cowan, 2006):

I like a job where....

- A. Loyalty earns job security and we are treated fairly.
- B. I make lots of money, people stay off my back, and I can do what I like.
- C. Our primary concern is for the health of the planet.
- D. Our community is made stronger as we work together and sacrifice for each other.
- E. Successful performance advances my career and I can get promoted.
- F. Human feelings and their needs come first as we all share equally in a caring community.
- G. Systemic and long-range thinking count more than people, money, traditions, or quick fixes.

In this item, the choices are associated with the following belief systems:

- A. Blue (Truth)
- B. Red (Power)
- C. Turquoise (Holistic)
- D. Purple (Magical)
- E. Orange (Achievist)
- F. Green (Humanistic)
- G. Yellow (Integrative)

This item has a positive root and points were given to choices that represented acceptance scores for a particular worldview. For example if a person provided 8 points to choice **F** and 7 points to choice **G** for this item (the points should add up to 15) this means that the person was providing acceptance scores to the green and yellow worldviews. In the test, the same item was asked again with the same choices but with a negative root, which is “in my job, it is less important that.... The points provided to this item constitute the rejection points given to worldviews. The total acceptance and rejection points were interpreted within a chart that provided average acceptance and rejection points of the general population within percentage intervals. Although one could argue with the semantics of the pre-constructed statements that are provided to research participants the preferences that individuals choose only suggest what assumptions may lie beneath. The data from the chart are used as a starting point for discussion. Beck and Cowan (2006) suggested that for reasons of

validity a researcher should let a person state what their worldview is like by using the values test chart and then to analyse that data in conjunction with other measures such as observations and interviews.

**Table 3** *The chart used to interpret the values profile test results (Beck & Cowan, 2000)*

%	Yellow	Orange	Red	Purple	Blue	Green	Turquoise
99	59	74	41	29	61	50	33
90	51	63	39	28	60	49	32
80	40	51	27	19	45	37	23
70	36	46	23	16	40	33	19
60	33	41	19	13	35	29	16
50	29	37	15	10	31	25	13
40	28	35	13	9	28	23	12
30	24	31	9	6	24	20	8
20	21	26	5	3	19	15	5
10	16	21	0	0	12	10	1
Acceptance						<b>35</b>	
Rejection						<b>5</b>	
10	5	1	19	15	1	5	14
20	8	6	26	22	7	8	19
30	10	9	32	27	11	10	24
40	12	12	38	32	15	12	28
50	13	14	40	34	17	13	30
60	15	17	46	39	21	15	34
70	18	20	51	44	26	18	39
80	20	24	58	50	31	21	44
90	27	33	75	65	43	29	55
99	29	34	81	69	44	31	60

An example, using this chart would be; if a person's total acceptance score for the blue worldview was 33 as indicated on the chart, then this person has provided more of an acceptance score for this particular worldview than 55% of the general population. Conversely a low rejection score should be observed if consistent with the acceptance score. In the example a score of 6 is indicated. This is how the chart allows a researcher to interpret a person's Value Test results relative to the population. The participating teachers each took the test on one occasion (Hurlbut, 1979).

### ***The values test design***

The test was designed by Hurlbut (1979) and was developed to reveal an individuals primary level of existence according to Graves' (2005) model of adult psychosocial behaviour later known as Spiral Dynamics (Beck & Cowan, 1996). The content of the test was derived from the compiled lists of characteristics for the value memes. It was administered to a total of N=4029 participants. Using a split-half technique and by correlating the two halves of each individual's test, reliability indices were

obtained. Concurrent validity was established by comparing the predicted scores for thirty respondents with their actual scores on the test instrument. A correlation of 0.8858 resulted. In establishing construct validity, three hypotheses were considered. Hypothesis 1 predicted that the results of the values memes test for persons under thirty years of age would differ significantly from the results for persons 30 years of age and over. The differences found were not significant at the 0.05 level (n=179), and this hypothesis was not accepted. The instrument was subjected to tests of reliability and validity with the following results (Hurlbut, 1979).

### ***Reliability***

Reliability indices of .91 (n=105) and .88 (n=2,220) were obtained by using a split half technique and correlating the two halves of each individual's test. These measures of reliability were considered significantly positive (Hurlbut, 1979). Reliability indices shown in the following Table 4 were obtained by using a split half technique, this technique correlated the two halves of each individual's test into two groups. The test was split into two halves. Each half was scored separately, and a correlation coefficient between the two scores was computed. Then the Spearman-Brown formula was applied in order to compensate for the fact that the reliability was estimated from a test one-half the length of the final form. The test was not halved according to the odd-even approach, since it was deemed imperative by the author for equivalency that each half contain equal representation of all six levels of existence (Hurlbut, 1979).

### ***Population***

Each examination used two groups; the first group consisted of an n of 105 and the second with an n of 2,220. The first group consisted of geophysical supervisors (n=20), workers from a taxation company (n=39), oil field workers (n=18), and nurses (n=28). The second group consisted of employees from a company called Blue Cross-Blue shield of Texas who took the test as a company wide attitude survey (n=2,220) (Hurlbut, 1979).

**Table 4 Reliability indices using the split half technique**

Levels of existence value memes	n=105	n=2,220
Tribalistic Purple	0.5143	0.5625
Egocentric Red	0.6583	0.6969
Absolutist Blue		0.7055
Achievist Orange	0.7530	0.7621
Sociocentric Green	0.8508	0.7285
Individualistic Yellow	0.6730	0.6730

### ***Validity***

Content validity was established by asking the National Values Centre to examine and approve the test instrument (now known as Spiral Dynamics and NVC Consulting) (Cowan & Todorovic, 2009). A form of concurrent validity was employed and the author noted that a high correlation between the predicted scores for thirty respondents and their actual scores on the test instrument (0.8858). The results of this form of discriminant validity testing were considered significantly positive. Under the heading of construct validity, three hypotheses were tested as to determine if the values test measured what it was designed to measure (Hurlbut, 1979).

### ***Hypothesis 1***

Predicted that the results of the levels of existence (value memes) test for persons less than thirty years would differ significantly from the results for persons thirty years of age or over, specifically, persons less than thirty were predicted to score higher in the individualistic (yellow value meme) and socio-centric (green value meme) and persons aged thirty and older were predicted to score higher in the absolutist (blue value meme) and tribalistic (purple value meme) levels. Hypothesis 1 predicted that the results of the values memes test for persons under thirty years of age would differ significantly from the results for persons thirty years of age and over. The differences found were not significant at the 0.05 level (n=179), and this hypothesis was not accepted.

This hypothesis was tested by stating four separate hypotheses in null form and applying a t-test for two independent samples for each of the levels. Results can be seen in the following table (Hurlbut, 1979).

**Table 5 Mean scores for hypothesis 1**

Level	Mean Scores		t-value
	Under 30 (n=56)	30 and Over (n=123)	
2 purple meme	10.8036	10.4065	0.26
4 blue meme	29.9107	36.0975	1.64*
6 green meme	53.0357	49.1057	0.89
7 yellow meme	58.5724	57.6423	0.27

\*p<0.10

None of the differences were was significant at the 0.5 level. Hypothesis 1 was rejected (Hurlbut, 1979).

### ***Hypothesis 2***

Hypothesis 2 predicted that the levels of existence (value memes) test would discriminate between and among different occupational groups of people. Specifically, comparisons were made between counsellors, managers, and clerical employees in absolutism (blue value meme), achievist (orange value meme), and socio-centrism (green value meme). Two statistical techniques were used. The results of t-tests for two independent samples are shown in the following table.

**Table 6 Comparison of scores at three levels of existence according to occupational groupings**

Level value meme	Groups compared	Mean	t-value
4 Absolutism Blue value meme	Group A-Clerical (n=65)	44.3939	2.05*
	Group B-Managers (n=65) Counsellors (n=49)	33.0488	
5 Achievist Orange value meme	Group A-Managers (n=65)	54.0909	5.33**
	Group B-Clerical (n=65) Counsellors (n=49)	30.9756	
6 Socio-centrism Green value meme	Group A-Counsellors (n=49)	72.6531	7.04**
	Group B-Managers (n=65) Clerical (n=65)	38.7121	

Where \*p<0.01 and \*\*p<0.001

At each of the three levels of existence, the groups were significantly different from each other. A second statistical technique, hierarchical grouping, identified persons with similar profiles on a number of levels. The scores of ninety-nine participants (thirty-three in each occupation) were sorted by degree of similarity into three groups. The membership of each group was examined to see if any connection with occupation was apparent, and in each case it was. Group A was dominated by counsellors, group B was dominated by managers and group C by clerical workers. On the basis of the results of the two statistical tests described, hypothesis 2 was accepted.

### ***Hypothesis 3***

Hypothesis 3 predicted that a person's primary level of existence (value meme) and secondary level of existence (value meme) as revealed on the test would be within three levels of each other. This was found to be true for 98.8 percent of the individuals tested (n=216). Hypothesis 3 was therefore accepted. The generalised conclusion of the study was that the test of levels of existence (value memes) met the standards of reliability and validity accepted within psychometrics.

### ***Cross-culturally robustness of the values test***

A study carried out by Meyer and Braga (2009) was employed to ascertain the cross-culturally robustness of the values test. This broad study sought to explain and predict behaviour in collective action situations using alternative theories and models of adult development. The paper was rooted in the constructs of a Graves (2005) developmental theory; one that was particularly suited to the examination of behaviour in situations where individual and the collective interests collide.

The authors Meyer and Braga (2009) began by assessing the psychosocial profiles of 322 participants who were in three experiments: a laboratory common-pool resource appropriation dilemma, including communication and sanctioning conditions, a stepwise public-goods provision dilemma with variable levels of required contribution, and the standard Ultimatum game. The researchers Meyer and Braga (2009) carried out factor analysis on data from the initial psychosocial survey of the experiments' participants to pre-test the cross-cultural robustness of the theoretical constructs set in the chosen developmental model. The procedure resulted in three

quite meaningful principal factors, which represented three principal psychosocial centralization stages present in their sample. The participants' behaviours in the different experimental situations were then analysed statistically to find out whether they conformed to a set of theoretical expectations derived from Graves's (2005) values memes theory. The following table represents aspects of the model.

**Table 7** *Cyclical aspect, way of thinking and themes of the selected Gravesian stages or waves of interior development (Graves 2005)*

Values meme level and stage	Aspect coping means	Thinking	Basic theme
<b>8th</b>	Sacrifice-self (communion)	<b>Holistic Turquoise value meme</b>	<i>Adjust to the realities of one's existence and accept the existential dichotomies as they are and go on living.</i>
<b>7th</b>	Express-self (agency)	<b>Ecological Yellow value meme</b>	<i>Express self for what self desires, but never at the expenses of others and in a manner that all life, not just my life, will profit.</i>
<b>6th</b>	Sacrifice-self (communion)	<b>Consensus Green value meme</b>	<i>Sacrifice now in order for all to get now.</i>
<b>5th</b>	Express-self (agency)	<b>Strategic Orange value meme</b>	<i>Express self for what self desires, but in a fashion calculated not to bring down the wrath of others.</i>
<b>4th</b>	Sacrifice-self (communion)	<b>Authority Blue value meme</b>	<i>Sacrifice self now to receive reward later.</i>
<b>3rd</b>	Express-self (agency)	<b>Egocentric Red value meme</b>	<i>Express self, to hell with others and the consequences, lest one suffer the torment of unbearable shame.</i>
<b>2nd</b>	Sacrifice-self (communion)	<b>Animistic Purple value meme</b>	<i>Sacrifice self to the way of your elders.</i>
<b>1st</b>	Express-self (agency)	<b>Instinctive Beige value meme</b>	<i>Express self as just another animal according to the dictates of one's psychological needs and the environmental possibilities.</i>

Source: Author' Meyer and Braga (2009) configuration based on Graves (2005) and Beck and Cowan (1996).

### **Method**

The psychosocial profiles of N=322 potential participants were assessed by means of a survey designed using an authorized tool developed by Hurlbut (1979), in collaboration with the National Value Center (NVC) Inc.

### ***Recruitment procedures and characteristics of the sample***

For the most part, the experiment participants were undergraduate and graduate students from various major programs at the Federal University of Viçosa (UFV). Forty-three percent were between 18 and 21 years old, 52% were between 22 and 29, 10 people (3%) were in their thirties, 3 were in their forties, and one individual was in his fifties. Ninety-two percent were from the Brazilian state of Minas Gerais, 3% were from São Paulo, 2% were from Rio de Janeiro, and the remaining participants were from Bahia, Espírito Santo, Brasília (D.F), and Pará. Identification numbers were randomly distributed to each individual to preserve anonymity.

### ***The assessment tool***

The assessment tool consisted of a values test survey taken using forty multiple choice questions in a *Most Like Me/Least Like Me* format (Values Profile). The tool was designed to reveal a person's psychosocial profile (from 2<sup>nd</sup> to 7<sup>th</sup> stages) with reference to his/her overall lifestyle and not to any compartmentalized area of life, such as profession or religious belief. Although a personality is thought to be formed by a mix of different value systems, Hurlbut's (1979) test was designed to reveal a person's dominant value system, then secondary value system.

Table 7 lists the six selected value systems and illustrates a statement representative of each system given in response to one of the survey questions.

**Table 8** *Statements representative of each stage of psychosocial development, from the survey question responses*

<b>FOR ME THE WORLD IS...</b>			
<b>Stage or wave</b>	<b>Cyclical aspect</b>	<b>Thinking</b>	<b>Representative statement</b>
7 <sup>th</sup>	Express-self (agency)	Ecological	<i>a chaotic organism forged by differences and change</i>
6 <sup>th</sup>	Sacrifice-self (communion)	Consensus	<i>a human habitat in which we share life's experiences</i>
5 <sup>th</sup>	Express-self (agency)	Strategic	<i>a market place full of possibilities and opportunities</i>
4 <sup>th</sup>	Sacrifice-self (communion)	Authority	<i>an ordered existence under the control of the ultimate truth</i>
3 <sup>rd</sup>	Express-self (agency)	Egocentric	<i>a jungle where the strongest and most cunning survive</i>
2 <sup>nd</sup>	Sacrifice-self (communion)	Animistic	<i>a magical place alive with spirit beings and mystical signs</i>

Source: Meyer & Braga (2009) Adapted from Beck (1999).

Hurlbut's (1979) test was assumed to be valid only for speakers of standard American English and persons with the equivalent of a high school education. Due to necessity, and under the consent by the National Values Center (NVC) Inc., the authors employed a Portuguese translation of Hurlbut's (1979) test to examine Graves's claim that the values test was cross-culturally valid (Graves, 2005, p. 4).

***Factor Analysis: pre-test of the cross-cultural robustness of Graves's constructs***

The authors Meyer and Braga (2009) suggested that the burden of proof of a theory that grounds a concept of human valuation in anything more general than the "settled convictions" of a culture is enormous. In this regard, the main contribution of their experimental work was to test a series of theoretical expectations derived from Graves's (2005) constructs vis-à-vis participants' behaviour under different experimental conditions. The wave-like, flowing phenomenon underlying Graves's (2005) concept of interior growth meant that his stages or "levels of existence" impart only *nodal* positions, or "centres of psychosocial gravity," not the *total* systemic manifestation of concrete individuals. However, these nodal positions must follow an invariant sequence so that the interweaving of value systems does not occur at random but follows certain logic of mutual evaluative perspectives. The authors (Meyer & Braga, 2009) claimed that if the factor analysis generates theoretically meaningful components from a non-arbitrary pattern of correlations between the *Most Like Me / Least Like Me* survey variables produced in their sample of Brazilian participants, then this result was a sign of the cross-cultural robustness of Graves's general scheme.

***Results***

***Factor analysis suggested that Graves's scheme was cross-culturally robust***

Table 9 presents the component matrix from factor analysis applied to the survey data. The moderate communalities indicated that survey scores were considerably scattered along the tridimensional space defined by the principal axes. Such dispersion reflects the natural overlapping and inter-wavering of the different psychosocial perspectives. What matters most was that the correlation pattern in the component matrix revealed three theoretically sound principal nodal waves of existence: the *egocentric (red value meme wave)* (Factor 1, Table 3), best represented by 3<sup>rd</sup> stage thinking; the *absolutist (blue value meme) wave* (Factor 2), best

represented by 4<sup>th</sup> stage thinking; and the *sociocentric (green value meme)* wave (Factor 3), as best represented by 6<sup>th</sup> stage thinking. Taken together, these three components explained about 70% of the sample's total variance (Factor 1 = 23.44%; Factor 2 = 22.15%; and Factor 3 = 24.56%, after Varimax rotations). The authors Meyer and Braga (2009) believed that the theoretical meaningfulness of these principal nodal waves of existence was an indication of the cross-cultural robustness of Graves's constructs (Graves 2005). If this were not the case they argued, there would be no reason to expect theoretically sound mutual evaluations involving these constructs in a sample of Brazilian participants assessed nearly three decades after their design in the United States.

**Table 9 Factor Analysis: Rotated Factor Matrix<sup>a</sup>**

Variable	Rescaled communalities	Rescaled Component (Factor)		
		1	2	3
2nd_most	.466	<b>.369</b>	<b>.476</b>	<b>.335</b>
2nd_least	.592	.002	<b>-.464</b>	<b>-.614</b>
3rd_most	.538	<b>.722</b>	.072	-.109
3rd_least	.851	<b>-.897</b>	.124	.176
4th_most	.733	<b>-.346</b>	<b>.783</b>	-.007
4th_least	.733	<b>.727</b>	<b>-.453</b>	.020
5th_most	.696	.092	-.052	<b>-.827</b>
5th_least	.532	-.069	-.246	<b>.683</b>
6th_most	.788	<b>-.423</b>	-.069	<b>.774</b>
6th_least	.518	<b>.569</b>	.256	<b>-.359</b>
7th_most	.766	.109	<b>-.850</b>	-.176
7th_least	.521	.215	<b>.682</b>	.104

Extraction Method: Principal Component Analysis. Rotation Method: Varimax with Kaiser Normalization. The correlations in bold are all statistically significant a. Rotation converged in 7 interactions.

Factor 1 (*egocentric wave-red value meme*) is best represented by the statements, values, and worldview associated with the 3<sup>rd</sup> stage (Table 1) and least represented by both the 4<sup>th</sup> and 6<sup>th</sup> stages, as demonstrated by data 17 shown in Table 3: positive correlations with 3<sup>th</sup>\_most and negative correlations with 3<sup>th</sup>\_least; positive correlations with 4<sup>th</sup>\_least and 6<sup>th</sup>\_least and negative correlations with 4<sup>th</sup>\_most and 6<sup>th</sup>\_most. On the other hand, Factor 2, (*absolutist-blue value meme wave*) is best represented by the statements and authoritarian view linked with the 4<sup>th</sup> stage (Table 1) and is expected to be strongly rejected by the 7<sup>th</sup> stage worldview (Table 3). Factor 3 (*sociocentric-green value meme wave*) is best represented by statements associated

with the 6<sup>th</sup> stage and strongly distanced from positions linked with the 5<sup>th</sup> stage, as expected. Meyer and Braga (2009) skipped comments on the 2<sup>nd</sup> stage; because plausibly was shown to be less useful for distinguishing the *nodal* positions present in their sample.

### ***Limitations of the test***

The test was limited by the accuracy of a pencil and paper personality test. That accuracy was proportional both to the test taker's awareness and understanding of his or her, own personality and to the truthful disclosure of that personality. The test instrument was expected to be valid for speakers of Standard English. The test instrument was developed and expected to be valid for persons with the equivalent of a high school education. A basic assumption of the test was assumed that there were certain detectable consistencies in individuals.

### **3.82 Phase 2 Interviews, casual dialogues (conversations) and observations**

When it comes to interviews, Creswell (2005) explained that open-ended questioning provided respondents with opportunities to best voice their experiences unconstrained by any perspectives of the researcher. These types of questions can also provide information that cannot be directly observed.

Interviews with teachers took place during the commencement of the first and second academic term 2007. They were all asked a series of open-ended questions (see Appendix B). Participants were encouraged to express their beliefs and feelings by asking them other questions during the course of the actual interviews.

The data from the interviews were recorded using a tape recorder and voice to text software. This was later collated in the form of written notes, expanded, themed and typed later. The collected data in the form of text was analysed using the computer programme (CDC EZ Text-Qualitative Data and Coding Program Version 3.06c, 2005, Developed by Conwal Incorporated for the Centres for Disease Control and prevention). This programme was chosen because it was freely available and similar in operation to the commercial programme NUD.IST. Although there are no set

guidelines on coding text to make sense of the data, Creswell (2005) suggested that text should be divided into small manageable segments, and labelled with codes and later with themes, which the researcher complied with.

### **3.9 Ethical Issues**

Research with human subjects demands careful consideration and respect for the individuals involved. The literature suggested that two issues dominate guidelines of ethics in research with human subjects; informed consent and the protection of subjects from harm (Creswell, 2005). Informed consent ensures that subjects participating are voluntarily doing so and that they understand the nature of the study and the dangers and obligations involved. Researchers must not expose subjects to risks that are greater than the gains that may be desired. Another ethical issue that had to be considered carefully, concerned the fact that the participating teachers were required to reveal personal information to the researcher, who was a colleague. The challenge involved the separation of these two discreet roles (Frankham & Howes, 2006). According to Cohen et al., (2004), a key to the possible successful resolution of such concerns lies in the establishing of good relations, which would involve a development of rapport between the researcher and the subjects leading to a feeling of trust and confidence. For the researcher of this study the success of such a resolution would involve not only the establishment of a good relationship with the subjects but would also require the truthful reporting of observations and conversations as they took place through careful recording using written notes and tape recordings. However, the process of separating the two discreet roles was undoubtedly difficult to achieve, therefore only the necessary required personal information that assisted in the study was revealed. Recognising that the essence of ethics resides in the researcher's own accountability, it was imperative that the researcher of this study be conscious of the ethical issues that pervade the research process, from conceptualising the problem to disseminating the findings.

#### ***Ethics and teacher evaluation***

Conducting observation or interviewing with one's peers' raised particular ethical issues that were directly related to the nature of this research. The degree of openness or closure of the nature of the research and its aims is one that directly faces the

teacher researcher (Hitchcock & Hughes, 1989). This issue was of concern in terms to this particular research study because it attempted to uncover the privately held beliefs and value systems of the participants.

The researcher endeavoured to separate himself from the data so that it could be treated objectively by following the criteria below.

### ***Informed consent***

The research participants were all individually issued with a letter of consent. All participants were volunteers and had the right to withdraw from the study at their discretion at any given time (see Appendices I, J, and K). The school principal was consulted, informed and the necessary permission and approval sought.

### ***Anonymity and confidentiality***

All participants were issued with pseudonyms to remove identification features from the collected data. The participants have not been identified in the study or in the reporting of the study.

### ***Feedback and reporting***

Feedback was provided to all participants through transcribed notes and conversation. Consultation was used in the determination of any inferences made, and for the prevention of the potential of misinterpretation of the findings and conclusions. Authorisation was sought from each individual participant in terms of using quotations: verbatim transcripts from audio and paper recordings were sought.

## **3.10 Quality Criteria**

Reliability and validity are two aspects of quality criteria that have been developed within the positivist research paradigm. The quality criteria suggested by Guba and Lincoln (1989) were employed, this criteria conceptually parallels the criteria in the positivist paradigm, but is adapted for constructivist inquiry. The parallel criteria are known as “trustworthiness”. These are credibility, transferability, dependability, and confirmation. These were addressed by negotiating constructed meaning with the research participants; keeping timely records of the collected data, reporting

truthfully, spending as much time with the research subjects and using different sources and methods to collect the data sometimes referred to in the research literature as triangulation (Guba & Lincoln, 1989; Creswell, 2003).

Triangulation in the literature was purported to establish confirmation, where the researcher seeks to overcome the vulnerability of a single method, or 'method boundness' as it has been referred to (Creswell 2005). The argument in its favour was to provide a solution to the research problem that does not rely on any single data source or method, and thereby not threatening the credibility of the findings (Cohen, Manion et al., 2004).

### **3.11 Summary**

A review of literature exposed the various approaches undertaken by researchers in the pursuit of new knowledge. However, some authors had been found to inadequately address and define research terminology and had used terminology that was not compatible in its intent, often omitting significant concepts. This was compounded with some literature failing to substantiate the difficulties posed in the research process, often failing to explore the role of the research paradigms and perpetuating an unhelpful dichotomy between qualitative and quantitative methodology (Schrag, 1992). The role of research paradigm has been shown to be paramount in making choices in respect to methodology, and yet has not been addressed effectively in many of the reviews of literature. A wider acceptance of mixed method designed research has been indicated as providing enrichment and strengthening research through the application of qualitative and quantitative methods. However, like many other research approaches, has been shown to require a review through a critical analysis before its application to studies.

The researcher of this study demonstrated that the research design decisions were made intentionally through an informed reading of positivist, interpretivist and mixed method literature, and the researcher has provided the rationale for use of a mixed method evaluation grounded in mixed methods literature, with an interpretive, qualitative bias. The qualitative aspect of the research methods include the gathering and analysis of data from written narrative written accounts of observations, open-

ended interviews of all teachers and administrator case studies. A values profile belief questionnaire test profiler was administered to expose participants' beliefs and values systems from the worldview perspective of the spiral dynamics model. The research was based in an interpretive paradigm in the respect to best ascertain the belief systems and practices of the case study participants being the focus. Throughout the research, participants were included in the process and the researcher endeavoured to protect their privacy and do them no harm. In the following chapter 4 the results of the study are presented to the reader as is an analysis and interpretation of the findings.

## **CHAPTER 4**

### **RESULTS AND ANALYSIS**

#### **4.0 Overview**

In this chapter, the researcher presents the analysis and interpretation of the findings from both the qualitative and quantitative data of the research study.

#### **4.1 Introduction**

The qualitative data that emerged during phase 1 from the lesson observations follows. The qualitative data also included observations during phase 3 of the social dimensions of collegiality and classroom practices. Values profile tests and open-ended interviews made with the case study teachers' and administrators' were also conducted. Pseudonym names were provided for the participants to ensure anonymity, these were: Samantha, John, Anne, and Mark for the teachers. The two school administrators were Elizabeth and Michael. The description of the observed lessons took place during the beginning of 2006 and the first and second semester of 2007, as did the open-ended interviews. The researcher recorded events as they occurred and at the end of each observed lesson, a brief informal interview with each participant teacher took place to clarify aspects of the observations and the same procedure occurred after the open-ended interviews. The values profile tests also took place during the same time frames.

#### **4.2 Research Setting**

A pseudonym was used to ensure the anonymity of the participating school. St Catherine's High, a school in a rural region of Australia. School enrolment during the study remained stable at around 200 students. Enrolments came from surrounding townships. Approximately 40 % of students were identifiable as of Italian decent, 50 % of other European decent and the remainder were of either Aboriginal or Torres Strait Islander heritage. Staff ages ranged from 25-70 years with the average age being 44.75. Staff turnover was seen as fairly low, with a few long serving members. The average length of service was seven years.

### **4.3 Sample and Procedure**

Following university approval from the ethics committee, the school principal was contacted to gain approval for permission for the researcher to conduct the study at the case school. Once, permission had been received from the school the principal and schoolteachers were contacted. From the initial contact a meeting took place to discuss the actual process and procedures of the study. During the meeting potential research participants were informed that participation would be on a voluntary basis and that individuals, could withdraw from the study at any time. A letter addressing these concerns was also made available for individual perusal. Those teachers that decided to take part in the study were requested after reading the letter, to sign and return it to the researcher (see Appendix D).

### **4.4 Quantitative and Qualitative Data Phases 1 and 2**

Case study observations; value profile tests, social dimensions of the school and open ended interviews (refer to appendix B for example questions) of the school administrators: Michael and Elizabeth, and classroom teachers Samantha, John, Mark, and Anne follow.

#### **4.41 Portraits of the teachers and school administrators**

The teaching and administrative staff at St Catherine's High were observed to have several social dimensions of collegiality such as Friday afternoon drinks, celebrations of birthdays, and weekly recess teas/lunches (*observation Friday, 23rd March 2007*). The most common form of socialising between school staff occurred in between teaching periods. Firstly, informal staff gathering commenced early in the mornings. The school generally opened for business at 7.30am and during any time after that, teachers and administrators would arrive at the school office or the teacher's staff room. Most teachers brought their own food and drinks to school and placed these in a refrigerator. Some teachers would often be seen in the staffroom drinking coffee or tea, providing time for informal chats before commencement of the first teaching period. Recess periods and lunch periods played an important part in providing for occasions for further social interaction. The school principal, deputy principal and assistant school principal often were observed in the staffroom during these two official breaks. Conversation amongst staff was wide ranging and included

professional and personal issues. Talking often centred on student concerns. Teachers sat around the room in groups in an informal setting. The staff room had been recently refurbished with new chairs, tables and work desks. A common social event that occurred at the school was the celebration of birthdays. Teachers were asked to contribute and bring food for a shared morning tea. A newly adopted and popular social activity concerned 'Friday afternoon drinks'. This was used to celebrate the end of the school week, whereby teachers at St Catherine's High gathered in the staffroom from around 3.20pm onwards for alcoholic, non-alcoholic drinks and a range of snacks. There existed an invitation for all members of staff to partake however ancillary staff were not seen to partake. Attendees varied in numbers each week as a result of school based commitments. The school principal and deputy principal were usually seen in attendance. Most teachers looked forward to this weekly ritual.

One teacher commented:

*"It's great to be able to unwind after a sometimes gruelling week. You know, to be able to chat about anything you want. It's a real relaxation." (Casual conversation with John Thursday, 22 March 2007).*

Many of the observed formal social activities in which staff at St Catherine's High, participated in seemed to always involve the eating of food, as purported by Valentine & McIntosh (1991) in their research in female dominated workplaces.

Staff meetings took place at the school on Tuesday of every week. The purpose of the staff meetings was for members of the teaching staff and school administrators to get together to discuss any issues regarding such things as the curriculum, students, and any discipline issues. The meetings always were observed to take place at precisely 3.30 pm in a large room in the school library. The meetings would generally last until around 5.00 pm, whilst some members of the teaching staff seemed to eagerly relish the prospect of meeting with colleagues and school administrators others such as Brian could not wait until the meetings concluded. Generally the school principal was observed to reside over the meetings with a

nominated member of staff to record minutes of the meetings, and at other times the school deputy principal would take control. Although questions from teachers were permitted at the meetings many staff perceived that the management were only providing lip service (*observation Tuesday 21/11/2006*). In one particular discussion that the researcher had with Brian he expressed the following concern:

*“You know these meetings are just a complete waste of time. Nothing ever comes of them. Some people just seem to like their own voices. You know I don’t know how people can talk and talk and talk about nothing of any use. They seem to me to just like to hear their own voices. The management never seem to listen to us either, well they seem to listen but nothing ever comes from it. I could count on one hand the actual number of meetings that have been of any use in this school. You, know it’s a good job that I only work here part time. I am just waiting until my super is enough and then I am off. ” (Discussion with Brian on Tuesday 21/11/2006).*

At every meeting chairs and tables were set out facing inwards in an oval shape. This was supposed to provide for an environment where there was no perceived ‘head’ at the table. Generally one member of staff either volunteered or was nominated by a senior manager to provide some form of snack food for everyone to nibble on during the length of the meeting. St Catherine’s High school staff meetings were similar to other staff meetings experienced by the researcher in the respect that they were formally set with an agenda, although, the agenda never seemed to be followed consistently. Those teachers who seemed to eagerly anticipate in such staff meetings were often those that took discussions past the designated completion times. Anne was one of those teachers who enjoyed speaking with her colleagues and the administration staff at every opportunity; she would be seen to be actively engaged in discussions regarding student disciplinary issues. On some occasions the meetings overran by up to forty minutes, much to the annoyance of others (*observation Tuesday 05/12/2006*). Collegiality is an important consideration because it shows the interactivity and relationships of the research participants in the context of the school in which they work.

## 4.5 Case study: Portrait of Samantha

### *Vignette*

Samantha has been teaching science and mathematics for over 20 years. She taught part time at the case school. She had been previously employed in six schools over that time. The researcher first met Samantha over two years ago. She seemed ‘different’ from other teachers that the researcher had met over the years. Samantha had an odd sense of humour that was quite endearing to other members of staff. Her current teaching capacities at St Catherine’s High consisted of teaching mathematics to year 10 students and science subjects to years 8-12. Samantha was a highly qualified teacher (*conversation Monday 08/05/2006*).

### **Classroom observations**

Samantha shared science classrooms with three other members of staff at her school. She made references to the fact that she did not like the arrangements.

*“I want my own room so I can get it just right for my classes. Also I don’t like the fact that others (teachers) wantonly leave things all over the place. I am also sick of always having to move to different rooms during the day. It’s just not on. I mean it takes up too much time.” (Interview with Samantha, 08/05/2006, p. 4).*

Her favourite science classroom was one that most resembled a ‘lab’ as she put it. It had been recently renovated during the later part of 2006. Samantha commented that the cost involved though was extortionate. It had cost the school over \$68,000 to completely refurbish (*observation Tuesday 2/05/2007*). The room had a storage area for chemicals and science apparatus. New tables and chairs had been provided for students. Two new sinks were situated at either side of the room. Strangely, although new tiles had been placed as splash backs behind the sinks, some of the tiles were of different colours. Samantha said that the school had run out of money during work on the classroom, so some of the old tiles had been left on the walls. The actual furniture set up consisted of a formal setting with the teachers’ desk being placed at the front of the room. This faced towards the rows of desks and chairs that were used by the students. A blackboard hung up on the wall immediately behind the teacher’s desk. The researcher did not observe any provision for computers in the room. The

floor had been re-laid with a light grey non-slip industrial covering. Students had access to Bunsen burners for experiments when and if required.

Samantha taught students from years 8-12. She taught maths and science based subjects such as senior biology at the school on a part time basis. Although Samantha had initially agreed to participate in the research study, she seemed to be the most apprehensive. During the lesson observations, Samantha seemed to be very uncomfortable with the researcher's presence. She seemed to think that the researcher was there to make judgments about her teaching methods. The researcher did explain to her in detail what were the purposes of the observations. However, Samantha did not seem convinced (*Interview with Samantha, 13/03/2007, p.2*). An example of this apprehension was seen during an observation of a senior year 12 biology class in which she responded to the researcher by saying;

*“You know I feel uncomfortable with you in the classroom. You have chosen a bad day. My senior class is a very noisy bunch. Really you know. They aren't really bad though, just a bit noisy.”*  
(*Interview with Samantha, 13/03/2007, p. 2*).

Samantha was rarely seen to use the blackboard as a visual aid for the writing of notes for students or for expected lesson objectives. She was not observed to take a registration of those students who arrived or did not arrive to her lessons.

Generally students arrived to her lessons late with some arriving as late as twenty minutes into the lesson (*observation Tuesday 2/05/2007*). Samantha could be often heard responding to the situation by saying to those students that had arrived on time:

*“Have they arrived yet? Have they come yet? Oh, good here they come ha, ha.”* (*Lesson observation with Samantha 2/05/2007*).

Regarding communication during lessons students were allowed to talk to each other during most of the time. However, Samantha often had to raise her voice to be heard above the noise. She did not at any time though, insist from any of the students the need for silence (*Lesson observation with Samantha 2/05/2007*).

At the commencement of some lessons students received their work back from Samantha. Students remained seated whilst she walked around handing out the work to them. Every time she handed out a particular piece of work it was accompanied with the following words; “this is a good piece of work, this is not so good or this is not very good”. Samantha seemed completely oblivious to possible ramifications of her students knowing each other’s results (*Lesson observation with Samantha, 08/05/2006*). She was often seen to provide feedback to her classes whilst standing in front of her students. On some occasions, Samantha expressed her concern with the amount of work being completed during actual lessons and for homework.

*“I am not impressed with what you have done today. More effort is required. You should be recording your ‘prac’ notes in your logbooks. Look, you must write down all the information that I have given you. It is not on. I can’t do everything for you. Look, how are you going to pass your assignments if you don’t write down all the notes?”* (*Lesson observation with Samantha, 08/05/2006*).

On most occasions during observed lessons, Samantha was observed to spend most of her time talking to her students from the front of the class. She rarely was seen to walk around the classroom. After imparting new subject content to the class she provided some time for students to ask questions of her regarding such imparted lesson content. Although some individuals did take the opportunity to ask questions it was usually on an infrequent basis. The researcher did not observe Samantha ask individuals for feedback regarding lesson instructions. Therefore, it was difficult to ascertain whether students did in fact understand the tasks set by her. It seemed to the researcher that the focus of control seen in the classroom observations was with the students and not with the classroom teacher. When students were working on their own, Samantha was always available in the classroom for the students, such as if they had a question or if they required help for a practical experiment (*Lesson observation with Samantha, 08/05/2006*). She seemed more like a tutor or a classroom resource for her students. During most lessons that were observed Samantha could be seen rarely to walk around the classroom and ask individual students what they required in regards to providing help in completing their assignments (*Lesson observation with Samantha, Thursday 11/05/2006*). Students were allowed to move around the classroom and sit with other students without hindrance. Many sensible students took these opportunities to form small teams to

help each other and discuss issues surrounding work set. However, others took this as an opportunity to wander around the classroom environment aimlessly and disrupt others from the task at hand. Nearly all lessons became very noisy as a result. It was evident to the researcher after speaking to students, that for the best part of lessons some students were off task talking about non-educational issues. Students were also seen to be freely leaving the classroom for such things as using the toilet and also to get a drink of water without having to ask Samantha (*Lesson observation with Samantha, Monday 08/05/2006*).

In regard to classroom discipline, Samantha was often observed to use humour to placate her students. On one particular occasion, she was looking through a science textbook for pictorial information for a year 11 biology science class and the students became very noisy. The students were told to draw a particular diagram in their notebooks. Samantha commenced to draw the required diagram on a blackboard (*Lesson observation with Samantha, 08/05/2006*). A student shouted out to her that she had not got her science textbook. Samantha proceeded to laugh and said,

*“Oh, it’s a good job then that you have got me, isn’t it?” (Lesson observation with Samantha, 08/05/2006).*

She then brought out another book to the attention of her students and proceeded to place the book on her head. Samantha explained that the book balancing on her head was in fact a new book and that it could be loaned from the school library.

*“We will be using this book next term and I want you to write in your diaries that the book costs \$30 if you were to lose it. So then, you had better not lose this book.” (Lesson observation with Samantha, 17/05/2007).*

At the conclusion of lessons students were seen to leave on their own accord on hearing the school siren. I did not hear Samantha once inform her classes that they could leave (*Lesson observation with Samantha, 17/05/2007*).

An illusion could be seen to be being fostered in the case of Samantha who believed that other teachers at the school were adequately coping with the daily demands of teaching and that her own fears were born in part out of her perceived incompetence. This was perpetuated by the fact that she was unable or not committed to the daily

habit of communicating with her colleagues that often resulted in small interpersonal and professional differences. Samantha had expressed concern that she felt that some members of her science department were bullying her, in particular the school deputy principal? (*Casual conversation with Samantha on 06/07/2006*).

*“Every meeting that the science department has for most part been intense, no one listens to any of my concerns. It is as if I don’t exist. You know they listen to that new teacher. It’s not fair you know. I think that I have some good ideas, well don’t I?” (Casual conversation with Samantha on 06/07/2006).*

It seemed also evident during discussions with Samantha that she did not have much self-belief in her efforts to teach students in her charge or of being able to affect any decisions that were made, from discussions that she had with others in the science department. She did not take many opportunities to actively speak with many of her colleagues. Samantha generally spoke with just three staff members. These were Brian, Paul and John. Paul was one member of the school teaching staff that had decided not to partake in the study. Samantha seemed to spend more time with these teachers due in part because she perceived them to be the most educated and interesting to talk to and because she believed that they were interested in what she had to say? (*Casual conversation with Samantha on 06/07/2006*).

Samantha spent the least amount of time in the school. She was observed to be frequently late on many occasions to early morning staff briefings and was soon to disappear when she no longer had any lessons with students.

### **Samantha’s values test results**

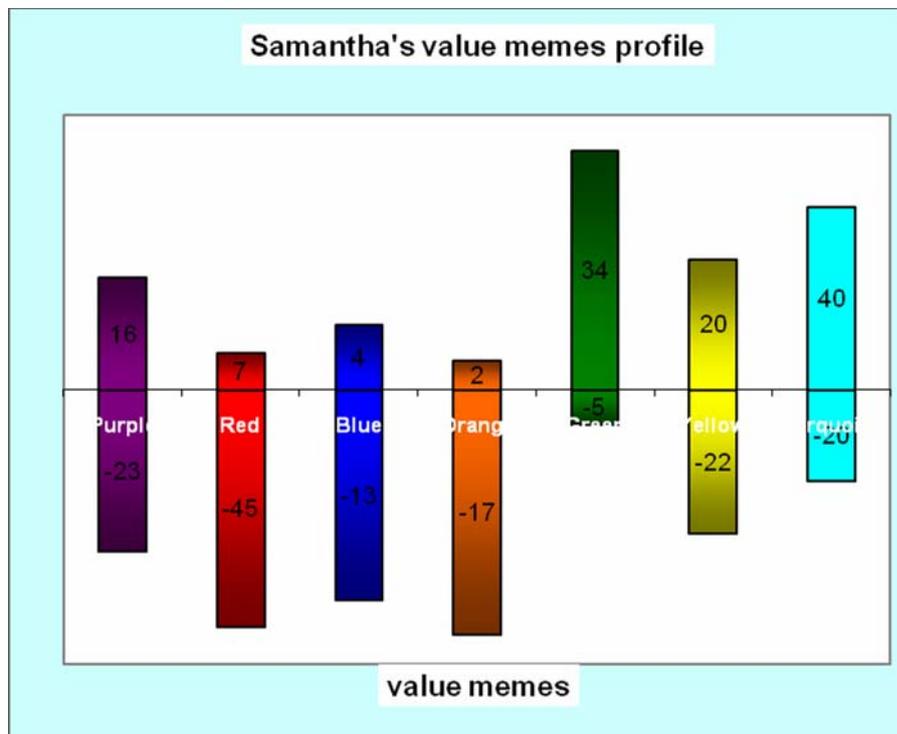
The values test instrument was not used to determine what an individual research participant thought but how s/he thought. The resultant individual profile was not used to determine a particular type of personality. It provided for a ‘snap shot’ of a moving picture of the participant in a particular circumstance at a given point in time. The chart, developed by Beck and Cowan (1996), was based on an analysis of results of a large group of people from different jobs and socio-economic status such as: teachers, nurses, and prison inmates, bank managers and construction workers. The population used came from such places as the United States, Australia, New Zealand,

Canada, the United Kingdom and South Africa. The column on the left (see Table 10) indicates percentages of average raw scores provided to items that represented a particular worldview. If an individual had a total acceptance score of 29 for the blue level of thinking, then this person would have provided more acceptance points to the blue way of thinking than 45% of the population indicated on the chart. Conversely, if an individual scored a total of 17 rejection points for the blue worldview way of thinking, then this would indicate that the individual had provided more rejection points to the blue worldview way of thinking than 50% of the population. The instrument in essence was used to track dominant value memes (or value systems) that were operating in an individual. To complete the assessment each research participant had to select from a series of statement clusters those that best resembled “most like myself” and “least like myself”. The instrument was designed as a forced choice format with individuals having to either accept or reject the statements. The resultant profile indicated the participants’ dominant value meme on eight scales. For example, if an individual rejected a particular value meme and for example, suppose that it was the blue value meme. Due in part because they wanted to either reject or not be associated with that particular worldview they would select non-trait statements that were “less like myself” designed to elicit that value meme. Conversely, if they wanted to accept or be associated with the blue worldview then they would select portrait statements that would indicate “more like myself”. Where there was no reaction then participants would skip over the statements.

**Table 10 Samantha's values test results**

%	Yellow	Orange	Red	Purple	Blue	Green	Turquoise
99	59	74	41	29	61	50	33
90	51	63	39	28	60	49	32
80	40	51	27	19	45	37	23
70	36	46	23	16	40	33	19
60	33	41	19	13	35	29	16
50	29	37	15	10	31	25	13
40	28	35	13	9	28	23	12
30	24	31	9	6	24	20	8
20	21	26	5	3	19	15	5
10	16	21	0	0	12	10	1
Acceptance	<b>20</b>	<b>2</b>	<b>7</b>	<b>16</b>	<b>4</b>	<b>61</b>	<b>40</b>
Rejection	<b>22</b>	<b>17</b>	<b>45</b>	<b>23</b>	<b>13</b>	<b>10</b>	<b>20</b>
-10	5	1	19	15	1	5	14
-20	8	6	26	22	7	8	19
-30	10	9	32	27	11	10	24
-40	12	12	38	32	15	12	28
-50	13	14	40	34	17	13	30
-60	15	17	40	39	21	15	34
-70	18	20	51	44	26	18	39
-80	20	24	58	50	31	21	44
-90	27	33	75	65	43	29	55
-99	29	34	81	69	44	31	60

**Figure 4 Samantha's value memes profile**



### **Samantha's value meme profile (portrait)**

Samantha scored highly in both the green (FS, relativistic) and turquoise (HU, holistic) values memes see Table 10 and Figure 4. Green and turquoise values memes are both sacrifice-self orientated. Both are concerned with the theme of community. According to the values test instrument, green was observed as being Samantha's prevailing dominant values level (Beck & Cowan, 2000).

'Green' thinking people show and have concern for human feelings, needs, and with relationships. Relationships are given priority in this level and the world is seen as a habitat where peace and prosperity must be maintained. Human rights, equality and well being for all are respected in the values meme. Individuals that think in this green level feel that they must be successful in interpersonal relationships they need to feel and be accepted within the group community. They need to feel that relationships with others are authentic, congruent, and honest and that trust exists for self and others. When this sense of belonging or trust is not perceived to exist for them, then the individual will tend to feel an increase in emotional stress. Individuals can be either extroverted or introverted. However, in either case they will tend to be very judgmental in their way of thinking, sometimes to such an extent that they often endeavour to convert others to their way of thinking. Communication in this value meme also becomes highly valued. In respect to educating and training these green individuals are very much involved in exploring each other's feelings. Group activities are sought and encouraged, as is experiential learning. A negative aspect of green is that an individual may be susceptible to groupthink, because the pressures to be supportive of collective decisions and actions may be extreme. The need of individuals to feel accepted may overwhelm the person's willingness to disagree with a decision with which they are not necessary happy with. However, green discussions can often dissolve conflict, build consensus, and sometimes enhance feelings of inclusion in a group setting. The green way of thinking is low in dogmatism in that many beliefs can be accepted. The value meme has certain belief characteristics: the earth's resources should be equally shared amongst all mankind, that humans should be free from divisiveness and greed, rationality should be superseded by subjectivity, reality should be seen as social construction, harmony amongst peoples should be sought, that relationships and communication are paramount, authoritarian ways should be negated, and egalitarian ways should be

sought, empathy of others should be sought, and knowledge must be seen as truth in context (Beck & Cowan, 2000).

'Turquoise' level people also have a holistic view of problems. In the turquoise values meme level all life is valued as a whole. People in this level tend to be conceptual, value learning and search for meaning and purpose in existence. This search reaches spiritual levels. The level of thinking is generally globalistic, extending across boundaries. The turquoise level of thinking is the first value meme that has evolved that is cross-paradigmatic. In other words people in this level are able to understand and tolerate others who think in different levels. They see their lives as being rather insignificant in the overall scheme of global existence. The value meme has certain belief characteristics: the world is seen as a single organism, which is dynamic with a collective mind, less is seen as actually more in a minimalist world, the self is seen as not only being separate and distinct but also as being part of a blended compassionate whole, that all living entities are seen as being important and are required as an integrated system, an ecological awareness of the oneness of all life on the earth is espoused, holistic thinking, and cooperation is expected amongst individuals, believes in the evolution of the spirit as belonging to an ongoing conscious system, and the universe is seen as a single entity of balanced interlocking forces (Beck & Cowan, 2000).

Samantha scored relatively higher than 15 percent of the general population in the yellow worldview (GT, Systemic) values meme but not as high as the turquoise and green value memes. However, because she had indicated an acceptance of this level it was still seen to be prudent to consider in the assessment. This level is also sacrifice-self in orientation. Samantha accepted this particular worldview because she felt that everyone was entitled to have their own worldview and their own point of view. This was because she thought, that it was so important, as she said,

*“Because we are all individual human beings and should have the right to be who we are.” (Conversation with Samantha, 17/05/2006).*

A sometimes-negative aspect of some individuals who think in this particular level is to feel the need to withdraw from groups and become individualistic. Other people especially team-orientated organizations such as schools may perceive them as being dysfunctional, resulting from the fact that they don't generally like to participate in groups, games and have a preference to work alone. Individuals tend to be not impressed with status or materialism however, they are or can be influenced by knowledge and believe information is a key to solving problems. They think systemically and holistically, and are the least egotistical of any of the value memes levels. An individual also appreciates one's unique abilities and limitations. However, they can become irritated and frustrated with the rigid thinking of others and often feel that they are misunderstood. The value meme has certain belief characteristics: that individuals should be able to accept paradox and contradictions, that life is seen as consisting of natural systems, forms and hierarchies, existence is valued over any form of materialism, that functionality, flexibility and spontaneity should have the highest priority, that the discovery of self and personal freedom should be without harm to others or self-excesses is seen as being important, and that knowledge base and competency should dominate rank, power or status (Beck & Cowan, 2000).

Samantha also scored relatively higher than the general population in the purple worldview (BO, animistic) values meme way of thinking. The world is seen as a mystical and sometimes threatening place. People in this value system find safety in communities within which they live, where people look out for each other. Spiritual beliefs, traditions, and rituals are valued. Individuals are often concerned with detail, and have a strong kinaesthetic or emotional interpretation of the world. The value meme has certain belief characteristics: that one should observe rites, rituals, seasonal cycles and tribal customs, sacred objects, places, memories and events should be preserved, allegiance should be shown to elders and customs, that the world is seen as being composed of good and bad, and rules are black and white (Beck & Cowan, 2000). Samantha read the portrait profile and was given the opportunity to comment on the assertions, and she concluded that they portrayed an accurate representation of the ways in which she thought.

### **Samantha's value meme profile (non-trait)**

Samantha strongly rejected the orange worldview (ER, Multiplistic) values meme that has a focus on innovation and the using of technology. This was evident during one of the conversations with the researcher in which Samantha stated that she could not see the relevance of using computers in her science classes. She felt that the tried and tested way of writing down research data into logbooks was the way to go for her students, rather than her students to become reliant on the use of computer technology. Samantha was one of the participant teachers who did not seem to be concerned with material possessions. She travelled to work in an old rusty car and was often seen wearing odd looking clothing. Conversely, those people that accept the orange worldview are concerned with material gain, possession and competition.

Samantha also rejected the blue worldview (DQ, Absolutist) values meme, which was indicative of her negative feelings regarding highly rigid systems such as religions (Beck & Cowan, 2000). During an interview with Samantha, she explained that she perceived the blue worldview as showing blind loyalty to a particular system, authority or with a particular belief. She also indicated that the blue worldview included the belief that there was only one right way to live, with which she could not agree. Moreover, although Samantha worked in a Catholic school she did see herself as being religious in that sense. She explained that she was not in fact a Catholic and that one of the reasons that led her to take up employment at St Catherine's High was that it had a better reputation than the local government schools in the respect that students were perceived by her to have an equitable chance of reaching their full potentials. As she said

*“There are more students in the government schools that disrupt lessons and therefore, good students suffer. Disruptive students have more time and effort spent on them and that's just not on. I mean it is not fair.” (Conversation with Samantha, 16/05/2006).*

Equity is a very real concern with individuals in the green worldview where they are concerned with everyone being treated the same. This notion conflicts with closed blue system that is concerned with self-righteous beliefs. Samantha rejected the red worldview (CP, Egocentric) values meme because those individuals in this value

system are reluctant to listen to other points of view. They do not value the experiences of others either, unless it has a positive repercussion for them in terms of further control or in gaining power (Beck & Cowan, 2000). Self is seen as primary at the expense of others, which was not congruent with Samantha's way of thinking.

Samantha also strongly rejected the yellow worldview (GT, Systemic) values meme, which incorporates ways of thinking that are not compatible with the green worldview.

Samantha's overall acceptance scores for sacrificial thinking (the combined scores of blue, turquoise, green and purple) were much higher than her expressive scores (these were the combination scores of yellow, red and orange). This would be expected for people who value the community. Professions that best suit the sacrifice-self values memes are health, and education (Beck & Cowan, 2006).

### **Responses to open-ended questions**

#### **Samantha's beliefs and values regarding education**

Samantha responded in an interview that she saw the purpose of education as being the means for helping students to make sense of the world and for facilitating students in reaching their true and full potential. She also saw education as providing the opportunities for students to become employable, provide them with life skills and generally a way of improving their lives. Samantha saw the main role of teaching in education in helping students to learn (*Interview with Samantha, Friday 05/05/2006*).

*"It's much easier to learn something new with someone guiding you than doing it by yourself. The role of teachers' is to help students learn. Teachers' should facilitate learning, they should inspire students, allow young minds (err) provide opportunities for young minds to develop." (Interview with Samantha, 05/05/2006, p. 1).*

Samantha stated that she thought it important that students should master new skills, concepts and ideas. She also thought that it was essential that students be taught the actual process of thinking (*Interview with Samantha, Friday 05/05/2006*).

*“Anything where you have to think (long pause) or use your hands, manipulative skills, prac, closed exercises where you have to actually plan to do something and carry it through. Research investigation exercises where you have to actually plan to do something and carry it through. We should have more activities for students on furthering their skills in listening, reading, investigating and activities to help them to be able to correctly answer questions. You know more traditional skills. The very best way to learn something is to teach someone else. Anytime a student has to explain something or demonstrate something to someone else is good. But behind that has to go the thinking and questioning. Teachers have to make things interesting for students to learn best. I also believe that homework is very important in the learning process. It is after all a great consolidator of knowledge.” (Interview with Samantha, 05/05/2006, p. 1).*

Parts of the statement above that concern practical and traditional skills, are compliant with the purple value meme of thinking, which is of interest because this is one of the value meme levels that Samantha accepted in the profile test.

This assumption was also supported when she was asked what the educational outcome should be for students. Her response was she thought that the educational outcome for students should be to provide opportunities for students to become employable and provide the necessary skills for this to occur. This particular sentiment conforms to the purple and orange levels of thinking that places high priority in the acquisition of knowledge and skills for ‘personal’ growth and benefit (Beck & Cowan, 2006).

When asked what she believed to be the role of teachers in the context of teaching and learning she replied by saying that teachers should facilitate learning amongst students. Teachers should also be able to inspire” (*Interview with Samantha, Friday 05/05/2006*). This statement fits well with the green level of thinking (Beck & Cowan, 2006). Regarding the actual process of teaching, Samantha purported that her teaching style had changed significantly over the years. She said that this was a result of ‘experience’ over time (*Interview with Samantha, Friday 05/05/2006*).

*“I have become more organised, more relaxed and more practical, and more efficient probably. Well after twenty years you do learn a few things. Most change, has been a result of administration imposing on us. A major area of change in my own practice has occurred due to changes in students’ attitudes. Students’ today seem to expect teachers and society to spoon-feed them with knowledge. I think they also try to take the easy way out when they can. They expect to get things these days with applying little effort. I seem to feel that most students these days have real difficulty in being able to think for them-selves, it’s really frustrating. I have found that I am continually expected to provide more scaffolding and structure. Even administration is becoming more concerned with making life easier for students. Well it seems so these days.”* (*Interview with Samantha, 05/05/2006, p. 2*).

Samantha said that she felt strongly about encouraging students in her classes to become autonomous learners. She felt that students should learn how to learn and develop a responsibility for learning. Her greatest challenge was seen in reaching students who did not want to learn. When asked to consider what should be included and excluded in teaching her response was that she thought that traditional skills should be continued to be taught in schools such skills as note taking, working out mathematical problems with paper and pencil and learning how to write reports using standard English. The following statement indicates a clear rejection of the orange level of thinking in which high priority is placed on the use of technologies and science (Beck & Cowan, 2006).

*“Look basic skills are not being taught or used as much in schools today, skills such as process thinking, whilst the kids are still young enough. It is much easier to learn when you are younger and things stay with you for life. I think it is important for young minds to master basic concepts and ideas. Yes, skills of learning also have to be taught as well. Schools seem to be taking on everything these days. I think more basic skill content is required and less work on computers and less paperwork. I think that computers are being used and relied upon too much, these days. It encourages students to become lazy and reliant on machines. I do not think that this is a good thing, one day I can see computers causing schools and society in general many problems.” (Interview with Samantha, 05/05/2006, p. 2).*

Samantha believed that students should not be passive learners in their education. She thought that students should help themselves and to some extent they should set their own goals (*Interview with Samantha, Friday 05/05/2006*).

*“They should show enthusiasm and attempt all tasks given to them, instead of complaining and just wasting time in class.” (Interview with Samantha, 05/05/2006, p. 2).*

When asked what she liked most liked and enjoyed in her teaching Samantha indicated that she enjoyed the company of students (*Interview with Samantha, Tuesday 09/05/2006*).

*“The students (ha, ha) that’s when they are interested. I love teaching my subject areas maths and science especially I love the practical aspects in science. It is also nice to be in a school with peers and to be able to relate to other teachers, rather than working behind a desk like in other jobs.” (Interview with Samantha, 09/05/2006, p. 2).*

The statement above complies with the green level of thinking in which individuals place priority in relationships and the notion of community (Beck & Cowan, 2006).

### **Samantha's values and beliefs regarding change and conflict**

For Samantha, change was seen as the most frustrating aspect of teaching. Especially those changes, that are imposed on teachers and change that has no perceived rationale. She also expressed concern for the lack of time given for teachers to effect change (*Interview with Samantha, Friday 05/05/2006*).

*"I don't like changes that you can't always see the reasons for, and lack of time to do the things that you want to do. Yes, these really frustrate me. However, I would have to say that the use of computers really is the most frustrating aspect for me in teaching these days. As I have explained earlier, students are too reliant on these devices. The machines make people lazy. You, know like not needing or having the ability to be able to spell and use grammar for themselves. Even the use of calculators in maths and science frustrates me. I really think that we need to go back to teaching basic skills to students and I often feel that these skills are quickly disappearing. Senior management only just last year has made the teaching of information technology a core subject in the junior school." (Interview with Samantha, 05/05/2006, p. 2).*

Samantha was asked to respond to a series of questions regarding her perception of the conflicts between what she believed about teaching and what she was actually 'allowed' to do (*Interview with Samantha, Friday 05/05/2006*).

*"There is always conflict with how you see the role of the school and what others see as the role of a school. I think that the social aspects of school have been over emphasised. I don't like the material aspects of the school like the debutante ball." (Interview with Samantha, 05/05/2006, p. 2).*

This statement above is another example of the rejection of the materialistic orange level of thinking (Beck & Cowan, 2006).

Samantha was asked to articulate what she considered to be a challenge in her teaching. She expressed concern with not being able to reach students that did not seem to want to learn. She was very concerned, and thought that she could not adequately deal with discipline issues. Samantha felt intimidated by some of her students and did not like the sometimes-ensuing conflict (*Interview with Samantha, Friday 05/05/2006*).

*“I sometimes feel like a failure. You know. I know for a fact that admin does not like me. I used to ask for help from them in the past. However, I have learned that they would rather pass the buck back on to me. They think that I am just a whinger I suppose.” (Interview with Samantha, 05/05/2006, p. 2).*

Samantha, saw a school as being a place of academic learning. However, she did make a point of saying that this judgment was based in the context of her own values and that the values of the school in general were not necessary wrong. She expressed concern, that her present employing school allowed students to run the school. Teachers, she said were undervalued by students and by the senior management. Samantha thought that there was not enough support for teachers at the school; she felt that discipline was a major area of conflict in this concern (*Interview with Samantha, Friday 05/05/2006*).

*“There is always conflict with what you see as being the role of a school and what others see as the role of the school. I think personally that the social aspects of a school have been over emphasised, especially in this school. Like the debutante ball and the year 12 students getting a seniors ring. Rather I see a school as being a place of learning. But that’s in the context with my values and not the schools values. Not saying that the school is wrong though. I also think that in general the students in this school seem*

*to run it. Teachers here are undervalued both by students and senior management alike, which means that teachers don't have as much control of the situation as they should do. Hum, I think that there is not enough support for teachers from administration in areas that you might need help in. I think that in this school environment students are too social in their approach to life. They are too familiar with teachers, and with their friends. Certain roles are held up in this place that are not held up in other places.”* (Interview with Samantha, 05/05/2006, p. 2).

The statement rejects the orange level of thinking and supports the green level of thinking. Green thinking individuals show tolerance and can accept other's opinions as being as valid as their own, as long as they agree (Beck & Cowan, 2006).

Samantha was asked how she managed personal autonomy with school conformity. Her response was that this was a difficult issue (*Interview with Samantha, Friday 05/05/2006*).

*“I always have thought that you should stay out of the way of administration, and (hum) as long as you think you are doing the right thing, then do it. Do the right thing, not necessary what you are told to do.”* (Interview with Samantha, 05/05/2006, p. 2).

Samantha was asked if she was happy in her present job. She responded by indicating that all jobs have their problems and that it is always nice to have a job. She mentioned that she was overworked with having to spend too much time focusing on completing paperwork such as forms. At the time of the interview she did not openly respond directly to the question. However, in further casual dialogue she did indicate that she was interviewed on a 'good day'. She admitted that she had in fact thought about leaving teaching on many occasions and that the only reason for

her not actually doing so was the thought of losing contact with students (*Interview with Samantha, Friday 05/05/2006*).

*“I have thought about leaving teaching on many occasions. However, when I have these feelings I think about losing contact with the students. People are always doing new things in schools; I would have to find something to replace it as well. I would also have to say that general daily disappointments make me feel like leaving. I believe that I am not listened too and get ignored. People just don’t listen to my concerns. You hear them saying that they are listening, but I know that this is not the case. Some conflicts with student management get me down and depressed. Senior management, need to make a firmer stand with these problems.” (Interview with Samantha, 05/05/2006, p. 2).*

Samantha’s main reasoning for not being happy in her present position was concerned with issues regarding self-efficacy and conflict with senior management. Samantha felt that she was losing capability in bringing about desired outcomes of student engagement and learning, especially with those students whom she perceived to be difficult and unmotivated. She also reported that she felt that her head of department was bullying her (*Interview with Samantha, Wednesday 06/09/2006*).

When asked what she would like to see changed in her school, Samantha said that she would like to see changes made in the context of discipline in the school (*Interview with Samantha, Wednesday 06/09/2006*).

*“Yes, discipline (pause), the school needs to be more organised, so that students and teachers know what is happening. Teachers need to become more interested in academic learning. Less sport, less parties and stuff like that. I think that too much time and effort is spent on these areas to the detriment of academic pursuits.” (Interview with Samantha, 06/09/2006, p. 4).*

### **Samantha's values and beliefs regarding professional development**

When asked if she thought that the school provided for adequate professional development, Samantha responded by saying that she thought that what was offered was generally inadequate. She felt that any provision for professional development was usually for the betterment of the school and not necessary for the benefit of individual staff (*Interview with Samantha, Wednesday 06/09/2006*). This sentiment fits well with the yellow system of thinking where individuals tend to have a strong sense of independence, individual competence, and self-worth. Employees require access to adequate resources and further professional development that address their needs and aspirations. Employees should be employed in roles that they naturally fit (Beck & Cowan, 2006).

*“No, we are supposed to be professionals. No, I don't think that these provisions at school are adequate. We all need ongoing professional development. New curriculum initiatives require that staff are adequately prepared and trained to implement these. I would like to see administration providing more opportunities ahead of time for appropriate professional development for teachers. There seems to be more provision provided for the administrative staff. Also, because this is a Catholic school any so called professional development that is conducted by a religious person is ok. I know someone that is doing a postgraduate degree and they won't recognise the work that she is doing as being professional development.” (Interview with Samantha, 06/09/2006, p. 8).*

### **Perceived role of school administration**

According to Samantha the administration staff should provide support for teachers and students and the general running of the school, for example in the formulation of teaching timetables. She hoped that changes could be made in the context of administrative staff providing greater support for teachers and provide for clearer instructions regarding discipline control measure (*Interview with Samantha, Wednesday 06/09/2006*).

### **Management of crisis and conflict**

When asked how she managed stress Samantha responded by saying that in times of stress, she often meditated and sometimes listened to music. She felt that music helped her to feel better with her life. She also internalised problems and tried to put things into perspective by trying to remind herself what was important. If threatened in a situation that she felt that she could not control, Samantha said that she would seek assistance (*Interview with Samantha, Wednesday 06/09/2006*).

*“There was one instance when I felt powerless in a situation when I was reported to the deputy principal by another member of staff. This was done without my knowledge. It could have been sorted out between us. I really felt powerless and stressed in this situation. It was rather embarrassing too. You know this situation was typical in some respects. I am always finding that I am misinterpreted and so am afraid of criticism. I am afraid of conflict and try to avoid it. I have also often found it difficult to work with some people especially those that have different views than myself. In such instances to be honest I have said the wrong thing without thinking about the consequences. Thereby, I have upset people unintentionally.”* (*Interview with Samantha, 06/09/2006, p. 7*).

She believed that the school provided provision for teachers suffering from stress to see a school counsellor. However, she was not too sure of the specifics and indicated that she was unlikely to use this particular resource (*Interview with Samantha, Wednesday 06/09/2006*).

### **Assertions regarding Samantha**

Samantha seemed to have some confidence in her ability to bring about some change in her students. This was defined as self-efficacy (Brouwers, 2000) and less fear of the outside world. This is one aspect of her dominant green and turquoise values systems. People who operate from these levels have a more developed and sophisticated view of the world. They also have a heightened sense of empathy for others and can dissolve conflict, build consensus and enhance feelings of inclusion.

Samantha had an external locus of control she perceived external factors were causing her to experience problems in her teaching and for her to be experiencing stress; her attitude of blaming herself and not being sure how to bring change in her environment seemed to be where she seemed to be having most difficulty. Samantha was also found to be very susceptible to groupthink. This is another negative aspect of the green way of thinking for individuals that feel the need to fit in and feel accepted by others (Beck & Cowan, 2006). This feeling of wanting acceptance, can and often overwhelm an individual especially in terms of being able and willing to agree or to disagree with an issue, so much so that such an individual will often agree to conflicting or dissonant views, which can be a causal factor often leading to extremes of stress. According to Beck and Cowan (2006), extremes of green can lead to burnout in education. More worryingly, they purport that the pressure of caring for green thinking can overwhelm, and individuals could be at a greater risk for depression. A suggestion from this study was for Samantha to endeavour to communicate her feelings with trusted colleagues and when she is ready, to also conduct possible dialogue with her senior management.

#### **4.6 Case study: Portrait of John**

##### ***Vignette***

John had been teaching art, graphics, religious education and geography in his present school for over 22 years and was also the teaching staff's union representative. He was the longest serving teacher at St Catherine's High. Prior to his present position John had taught at a government school in the same township as St Catherine's High. John was also one of only two teachers in the school who had always resided in the township", (*conversation with John, Friday 10/05/2006*).

##### **Classroom observations**

John was observed in the teaching of students in the subject area of art, which was his main area of expertise. He taught art to students in the years 8 to 12 and John was the only member of staff that taught art at St Catherine's High. Therefore, in effect he was his own head of department, which in itself had discreet advantages and disadvantages (*Observation with John, Tuesday 14/05/2006*). The main disadvantage for John was expressed during a discussion during one of the observations.

*“You know, it might sound great to be the only person in a school department. Yeah, with no one to keep looking over your shoulder all the time, but the reality is that if anything goes wrong then you get it in the neck. Also you are expected by senior management to write all the required schemes of work without being given time to do so. You know other departments that have more teachers, and an actual designated head of department. Those head of departments not only get time off the teaching timetable, but these people even get paid more for the extra responsibilities. At this school the actual person in charge of my subject area is the deputy principal. You know I found out that she gets paid extra for the responsibility. Yet, she does absolutely nothing. I have to do all the work. What is fair in that, uh? You know, whenever any work comes back from moderation that has been criticised I am in the principal’s office having to explain why.” (Observation with John, 10/05/2006).*

Conversely, working on your own sometimes has its advantages, which was expressed by John during a particular conversation (*Conversation with John, Wednesday 24/05/2006*).

*“I quite like the fact that I am left to my own devices at times. It is nice to be able to get away from all the whinging that often takes place in the school. I’m so not into that sort of thing. Anyway I like my own company. I can unwind when I am in my art workshop, for example, like being able to listen to my music. It also keeps me away from senior management.” (Conversation with John, 24/05/2006).*

The environment where John taught most of his classes consisted of a relatively small room, in which his students designed and produced works of art. In the room, students sat together on long tables in groups of six or eight; the tables were positioned together in an oval shape. The positioning of the tables encouraged students to openly communicate with one another. Paints could be seen stacked onto

a portable wooden trolley. The floor was tiled, as were some of the walls. The rationale for this as John said, was that it was much easier to clean up spilt paint. A very large blackboard hung on the front classroom wall, which John often used as a visual aid during many of his lessons. He preferred not to have this board replaced with a white board because he found the blackboard easier to use. Three further rooms led off from the end of the main classroom. One of the rooms was used as a storeroom and another was used for ceramics and pottery. The third and smallest of the additional rooms was used by John as his private office. The office contained the usual items that one would expect to find in most office environments such as a desk, filing cabinet and phone. However, an item that existed in the room that was of some interest was a large portable music system which was used often by John as a de-stressor (*Observation and conversation with John, Wednesday 10/05/2006*).

John would spend most of the time in front of the classroom facing his students. A typical lesson would first involve the students entering the classroom under their own volition. John would then take a register and after determining which students were present he would ask the students to sit up straight and face the blackboard. The blackboard was used extensively by John to show students' particular drawing skills. During one particular lesson John was observed in the teaching of a year 8-art class. Students in the class were being taught the fundamentals of drawing a face. John indicated to the students that they were to use charcoal, where he would be using chalk on the blackboard. As the students looked towards the board, John commenced to show how a face is drawn in discreet stages. Starting with an outline of the head and then dividing the size of the head into approximate thirds for the positioning of the eyes, nose, mouth and ears, with the students intently looking on. When and if any students seemed to John to be off task, he would gently remind them to be silent by saying, "shush, stay with me". As the lesson progressed more and more students became less focused in what John was trying to show them and commenced to chat amongst themselves. John seemed not to be too concerned with the noise level that ensued. After instructing the students in the methodology of face drawing, students were then told to draw a face of their own. Students were allowed to wander around the room without permission and interact with each other. This observation seemed to be typical in all lessons that were observed. John would wander around the room and provide any assistance that was required. Although after initial teacher-directed

commencement of lessons students were actively encouraged to take control and ownership of their own learning, John also encouraged his students to communicate with each other (*Observation with John, Wednesday 10/05/2006*). This dimension of the importance of communication is typical of those individuals that think in the green level (Beck & Cowan, 2006).

*“Students need to be able to talk to each other in lessons I think. I believe that they learn more when this is allowed to happen. After all adults in most areas of employment have to work in teams don’t they. If they cannot communicate well with each other then the team won’t be very successful. I remember when I was at school and most teachers stood at the front of the classroom and droned on and on. We all sat in rows facing them and had to work in complete silence. It was so very boring.” (Observation with John, 10/05/2006).*

John was asked during one conversation whether he had thought about using computer technology to generate art. Although he said that he had thought about the idea in the past, he thought that it would be too difficult to learn and he thought that it was more important for students to learn the traditional methods of producing art (*conversation Monday 15/05/2006*). This statement seemed to confirm that John rejected the orange level of thinking, which is concerned with the advancement of new technologies (Beck & Cowan, 2006). At the conclusion of lessons, students were invariably given some form of homework to complete. Instructions were written on the blackboard and students were expected to copy the information into homework diaries. John thought that homework was important in reinforcing new subject matter and it also helped to foster skills in self-reliance (*conversation Thursday 11/05/2006*).

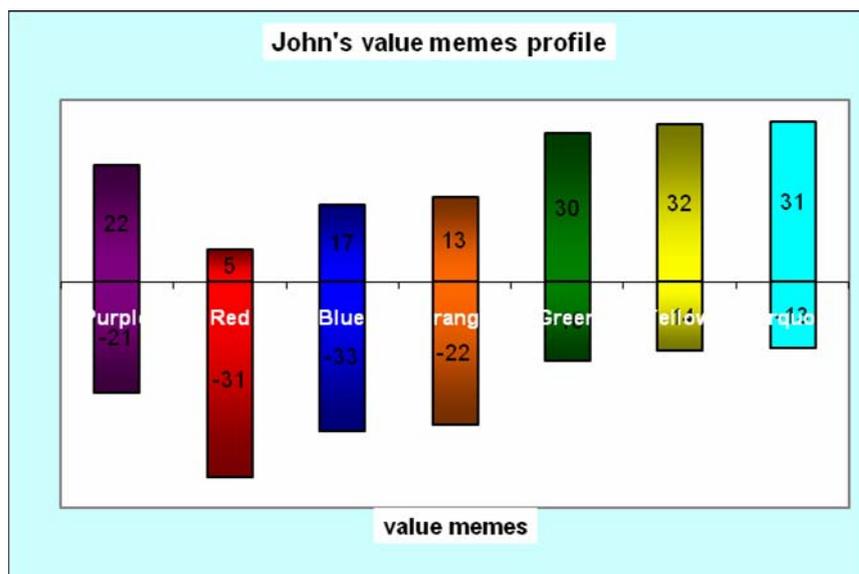
During observations (*observation of John, 12/05/2006*), it became evident that John seemed to spend the least amount of time in the school speaking and socialising with other members of the school staff. He was observed too frequently, to disappear whenever he had the opportunity to do so, such as at the conclusions of staff

meetings or morning briefings. He really did seem to like keeping his own company, often spending much of his time when at the school in his art classroom. This is a dimension of those people who accept the yellow level of thinking. They do not feel the need to be around other people and generally enjoy their own company or the company of a few friends or family (Beck & Cowan, 2006).

**Table 11 John's values test results**

%	Yellow	Orange	Red	Purple	Blue	Green	Turquoise
99	59	74	41	29	61	50	33
90	51	63	39	28	60	49	32
80	40	51	27	19	45	37	23
70	36	46	23	16	40	33	19
60	22	41	19	13	35	29	16
50	29	37	15	10	31	25	13
40	28	35	13	9	28	23	12
30	24	31	9	6	24	20	8
20	21	26	5	3	19	15	5
10	16	21	0	0	12	10	1
Acceptance	32	13	5	22	17	30	31
Rejection	14	22	31	21	33	16	13
-10	5	1	19	15	1	5	14
-20	8	6	26	22	7	8	19
-30	10	9	32	27	11	10	24
-40	12	12	38	32	15	12	28
-50	12	14	40	34	17	13	30
-60	15	17	46	39	21	15	34
-70	18	20	51	44	26	18	39
-80	20	24	58	50	31	21	44
-90	27	33	75	65	43	29	55
-99	29	34	81	69	44	31	60

**Figure 5 John's value memes profile**



### **John's value meme profile (portrait)**

According to the values test (see Table 11 and Figure 5) John scored highly in both the purple (BO, animistic) and turquoise (HU, holistic) values memes. Purple and turquoise values memes are both sacrifice-self orientated. Both are concerned with the theme of community (Beck & Cowan, 2000).

Turquoise was John's dominant values level. 'Turquoise' people value all life as a whole. Individuals who think in this level tend to be conceptual, value learning and search for meaning and purpose in their life. This search can sometimes reach spiritual levels. The level of thinking in turquoise people is also generally globalistic, extending across boundaries. People who value this belief system also have a holistic perspective of problems. Persons thinking in this value meme exist in relationship to collective order, not just the self. In turquoise, one learns not only in observation and participation but also through the actual experience of simply being. The value meme has certain belief characteristics: the world is seen as a single organism which is dynamic with a collective mind; less is seen as actually more in a minimalist world; the self is seen as not only being separate and distinct but also as being part of a blended compassionate whole, that all living entities are seen as being important and are required as an integrated system, an ecological awareness of the oneness of all life on the earth is espoused; holistic thinking and cooperation is expected amongst individuals; and belief in the evolution of the spirit as belonging to an ongoing conscious system and the universe is seen as a single entity of balanced interlocking forces (Beck & Cowan, 2000).

In the purple values meme level the world is seen as a mystical and sometimes threatening place. 'Purple' people find safety within communities that they live in, where others look out for each other. Spiritual beliefs, traditions, and rituals are valued. In the present world, people in this values meme live in small townships, ethnic neighbourhoods, or tribal communities. Marriage and family relations are valued highly and people in this system may as a consequence be committed to home and extended family relations this was evident in the fact that John had always lived and worked in the same township. The value meme has certain belief characteristics: one should observe rites, rituals, seasonal cycles and tribal customs; sacred objects, places, memories and events should be preserved; allegiance should be shown to

elders and customs; and the world is seen as being composed of good and bad, and rules are black and white (Beck & Cowan, 2000).

John also scored slightly higher than the general population in the yellow (GT, systemic) and green (FS, relativistic) values memes. The yellow values meme has an express self-orientation. People who value this values meme view the world as an intriguing, complex, and interactive system, which is under threat from humans' limited vision, namely, the previous values memes that are responsible for the problems such as, fundamentalism, violence, terrorism, pollution, global warming, and wars. Acceptance and harmony are peripheral to happiness in the sense that what others think is interesting but not critical. In this values system, people tend to have a strong sense of independence, individual competence, and self worth. 'Yellow' people are not driven by fear, compulsiveness, or loss of status. They may express discomfort at over-simplified models and failure to recognise the true complexity of issues. Systemic long-range thinking, questioning, and accepting differences are common attitudes among people who value this value system. The value meme has certain belief characteristics: individuals should be able to accept paradox and contradictions; that life is seen as consisting of natural systems, forms and hierarchies, existence is valued over any form of materialism; functionality, flexibility and spontaneity should have the highest priority; the discovery of self and personal freedom should be without harm to others or self-excesses is seen as being important; and the knowledge base and competency should dominate rank, power or status (Beck & Cowan, 2000).

'Green' thinking people show and have concern for human feelings, needs, and with relationships. Relationships are given priority in this level and the world is seen as a habitat where peace and prosperity must be maintained. Human rights, equality and well being for all are respected in the values meme. Individuals that think in this green level feel that they must be successful in interpersonal relationships they need to feel and be accepted within the group community. They need to feel that relationships with others are authentic, congruent, and honest and that trust exists for self and others. When this sense of belonging or trust is not perceived to exist for them, then the individual will tend to feel an increase in emotional stress. Individuals can be either extroverted or introverted. However, in either case they will tend to be

very judgmental in their way of thinking, sometimes to such an extent that they often endeavour to convert others to their way of thinking. Communication in this value meme also becomes highly valued. In respect to educating and training these green individuals are very much involved in exploring each other's feelings. Group activities are sought and encouraged, as is experiential learning. The value meme has certain belief characteristics: the earth's resources should be equally shared amongst all mankind; humans should be free from divisiveness and greed, rationality should be superseded by subjectivity; reality should be seen as social construction; harmony amongst peoples should be sought; relationships and communication are paramount; authoritarian ways should be negated and egalitarian ways should be sought; empathy of other's should be sought; and knowledge must be seen as truth in context (Beck & Cowan, 2000). John read the portrait profile and was given the opportunity to comment on the assertions, and he concluded that they portrayed an accurate representation of the ways in which he thought (*interview with John, Tuesday 06/06/2006*).

#### **John's value meme profile (non-trait)**

John strongly rejected the orange worldview (ER, Multiplistic) values meme that has a focus on upon, innovation, material gain, possessions, competition and the using of technology (Beck & Cowan, 2000). This was evident during one of the conversations with the researcher in which John stated that he was happy with the resources that he had been given for his art classes (*conversation with John, Thursday 18/05/2006*). John was very similar to Samantha in the fact that they both did not seem to be that concerned with material possessions. He also expressed, like Samantha, a general lack of interest in the using of computer technology in the teaching of his classes. When asked during a brief discussion whether he had any aspirations for promotion or career enhancement, he expressed little concern (*conversation with John, Friday 19/05/2006*).

Although John considered himself to be religious he rejected the blue worldview (DQ, Absolutist) values meme, which is indicative of negative feelings regarding highly rigid systems such as religions. His rationale for rejecting the blue level of thinking was based on the notion that the blue worldview included the belief that there was only one right way to live with which he could not agree (*conversation*

*with John, Thursday 18/05/2006*). Also equity among humans was a real concern for John, which is a concern for those people, who like John accepted the green worldview. This notion conflicts with the closed blue system that is concerned with self-righteous beliefs (Beck & Cowan, 2000).

John rejected the red worldview (CP, Egocentric) values meme because those individuals in this value system are reluctant to listen to others' points of view. They do not value the experiences of others either, unless it has a positive repercussion for them in terms of further control or in gaining power. Self is seen as primary at the expense of others, which was not congruent with John's way of thinking (Beck & Cowan, 2000).

John's overall acceptance scores for sacrificial thinking (the combined scores of turquoise, blue, green and purple) were much higher than his expressive scores (these are the combination scores of yellow, red and orange). This would be expected for people who value the community. Professions that best suit the sacrifice-self values memes are health and education (Beck & Cowan, 2000). These results are very similar in comparison with Samantha's scores.

### **Responses to open-ended questions**

#### **John's beliefs and values regarding education**

John responded in the interview that he saw the purpose of education as a means of helping people to discover what their innate abilities were and nurturing these abilities to fruition. He also saw education as a means of preparing young people for a meaningful role in society (*Interview with John, Friday 12/05/2006*).

*“A fairly rounded individual I guess that has a bit of enquiry skills and a questioning mind. To produce students who have a shockproof crap detector. Yeah, I think that's it” (Interview with John, 12/05/2006, p. 4).*

John also expressed the notion that he thought education and in particular schools should have a role in socialising students into society (*Interview with John,*

12/05/2006). These two statements are a reflection of the type of thinking in both the yellow and green levels (Beck & Cowan, 2006).

Regarding teaching, John reported that his teaching style had changed over the years. However, he was not that sure why this had been so (*Interview with John, Friday 12/05/2006*).

*“I probably can’t explain what they are exactly. Hum, it has mainly been a result of what I have actually done, even things that I have done for many years. If it seems not to be working with a group of kids I will adapt, some how to make it work.” (Interview with John, 12/05/2006, p. 4).*

John enjoyed teaching when students were actively engaged in the learning process. He also liked positive relationships with other teachers. Conversely, he felt that the greatest challenge and disappointment in teaching was with resistant learners in the classroom (*Interview with John, Friday 12/05/2006*).

*“Resistant learners in the classroom are the biggest challenge. Hum, particularly in elective areas that I teach. So getting people interested or motivated is the biggest challenge.” (Interview with John, 12/05/2006, p. 4).*

When asked what he believed to be the purpose of teaching, John responded by saying that he saw teaching as a means of guiding and nurturing the development of young people to play a meaningful role in society. He saw teachers themselves as being facilitators of the learning process (*Interview with John, Friday 12/05/2006*).

*“Hum, I think that teachers lean towards the facilitator model, allowing students to do things, rather than trying to build up knowledge as the main focus.” (Interview with John, 12/05/2006, p. 1).*

John thought that as a result of pressure from society teachers were expected to teach life skills to students that really should be the responsibility of parents. He believed that teachers had enough to cope with regarding the expected teaching of the state curriculum. When asked what he thought were the most useful activities for student learning, John responded by saying that he believed in students acquiring skills in the process of learning. In other words, he thought that students should not be spoon fed information instead they should be taught the process of how to learn for themselves (*Interview with John, Wednesday 07/06/2006*). The actual process of learning as opposed to knowledge accumulation is a dimension often positively expressed by individuals who value the yellow and turquoise ways of thinking (Beck & Cowan, 2006).

When asked if the school environment influenced his teaching John said that he really valued at times positive relationships (*Interview with John, Friday 12/05/2006*). Such relationships could be with teachers or students. Relationships are a value dimension of the green level of thinking. Where communication and caring are the focus with the green value meme, work is seen as motivated with human contact and contribution, learning from others. Being accepted and liked is seen as more important than competitive advantage (Beck & Cowan, 2006).

*“Look, I like positive relationships with other teachers. It is very important like, if you have had an excellent lesson, you can up load onto other people, which is positive.” (Interview with John, 12/05/2006, p.10).*

### **John’s values and beliefs regarding change and conflict**

For John, his greatest frustration in teaching was concerned with students that had no interest in learning (*Interview with John, Friday 12/05/2006*).

*“In the class room probably, students that have no interest. I think is the main issue, and of course demands on my time, such as preparing for practical classes generally, things that don’t relate*

*directly to actual teaching.” (Interview with John, 12/05/2006, p. 10).*

John expressed some concern in the belief that he thought that he was overworked. He resolved the tension and perceived conflict by limiting the roles that he undertook outside of his job description (*Interview with John, Friday 12/05/2006*).

*“Yes, I feel conflict in the respect that I feel that I am overworked. The school management don’t seem to care. I have started to limit the roles that I am prepared to take on beyond my job description. I have refused to take any extracurricular activities. Anyway admin does not give you any extra time for these. I mean how can you prepare for such activities without the time? A lot of pressure has come from the government and Catholic Education Office to implement new programmes; all changes that come about these days have been expected to be implemented without the necessary training or necessary resource provisions, so now I do the minimum, I do not volunteer for any other programme or activity. Why should I anyway?”(Interview with John, 12/05/2006, p. 10).*

He also did not like extra demands being placed on his time, issues with funding, classroom maintenance, and the size of the school. John was asked whether he was happy in his job. He responded by saying that he was at times. He did elaborate further by saying that he had seriously considered leaving the school on many occasions, due to perceived frustrations in and outside of the classroom (*Interview with John, 18/05/2006*).

*“Yes on many occasions. Hum, I guess because of the frustrations of both the inside and outside of the classroom. Yeah, I haven’t taken it very far. So maybe things have got better after a while. I even began upgrading my qualifications at one time, but the pressure of full time work and study became a bit too much. A greater effort of will was required on my behalf, also having two*

*children in tertiary education and the associated expense with that makes me reluctant to try a job with less pay. However, I do appreciate that some other jobs will have fewer demands. I do and have felt that demands placed on teachers here to be too great at times. Stress does have an impact on teachers these days. Anyway do such ideal jobs exist these days? I have some moments when the odd success makes it feel worthwhile.” (Interview with John, 18/05/2006, p. 10).*

The statement above suggests that John had a good internal locus of control for possible conflict resolution. Survival for his family was an important consideration for John in not leaving the teaching profession, he considered that he was the main wage earner in his family and leaving his job without securing another job with the same level of salary was just too much of a risk (*Interview with John, 18/05/2006*). Whenever the thought crossed John's mind regarding leaving teaching, he also thought about losing contact with his students. These concerns are often expressed by those individuals, in the purple level of thinking value meme. The purple value meme is the first sacrifice-self orientated values meme, where individuals are concerned with social relationships. Family relationships and provision for family and extended family are valued highly; individuals would rather sacrifice their own needs before the needs of their family (Beck & Cowan, 2006).

Further worrying frustrations for John concerned the belief that he thought that “any issue that he had taken to the school administration had not been adequately dealt with” (*Interview with John, Friday 12/05/2006*).

John was asked how he managed personal autonomy with school conformity. His response was,

*“Hum, a huge question. I guess, hum, I suppose you just have to watch other people’s moods. If it is changeable have a go at it. If not, hum.” (Interview with John, 12/05/2006, p. 5).*

John also suggested during one of the interviews that his present school needed more heads of department (*Interview with John, Monday 26/05/2006*). So that teachers with extra responsibility would be recognised for what they were already doing this is a sentiment that is usually expressed by individuals in the orange value system level of thinking. Assumptions in the orange value meme are: those that are in roles of responsibility in organisations should be recognised for their achievements and should receive corresponding material rewards, competitiveness should be actively encouraged; and success is immediate and rewards supersede this (Beck & Cowan, 2006).

John saw change as inevitable in all aspects of life which is a dimension expressed in the yellow and turquoise levels of thinking. He could accept change readily if he could see the relevance of it (*Interview with John, Monday 26/05/2006*). In the yellow value meme change is seen as being inevitable and should be accepted if it is relevant and will improve the status quo. The turquoise level of thinking is holistic and all things including work and change should be meaningful for all (Beck & Cowan, 2006).

Often John would use humour when responding to areas of perceived conflict in his school (*Interview with John, Friday 12/05/2006*).

*“Hum, between the thought and the deed falls the shadow. The real and the ideal never are the same. What I mean is this, you can believe that certain things should occur in a school however, what you actually get are sometimes two different things.” (Interview with John, 12/05/2006, p. 10).*

When asked what he would like to see changed in his school John said that he would like to see changes made in the context of discipline in the school.

*“Broadly speaking, yes I am happy with some school disciplinarian measures. I quite like the thrust of the new assignment submission policy, for example although, I have in the past been puzzled at*

*times by the number of chances given to those students who have repeatedly limited the ability of others to perform to their capacity through disruption of lessons. It could be related to the current school's ethos I suppose. In that the school seems to place precedence on the individual as opposed to the group. You have to wonder if the needs of the individual should be overlooked at times so that the needs of the many can take precedence.” (Interview with John, 12/05/2006, p. 12).*

The concern shown by John in the statement above for the ‘many’ possibly at the detriment of the individual is a classic dimension found in those individuals that think in the yellow and turquoise ways of thinking (*Interview with John, Friday 12/05/2006*). In the turquoise level of thinking holistic thinking and cooperation is expected amongst individuals. People who value this value meme have more of a community orientation and have a more holistic view of issues or problems, where the needs of the many should out way the needs of the individual whether in the form of a person or an organisation. The self is seen as not only being separate and distinct but also being part of a blended whole. In the yellow system individuals express discomfort at over simplified attempts to solve problems without attempting to take into account the true nature or complexity of the problem, especially in respect to how it relates to others (Beck & Cowan, 2006).

### **John’s values and beliefs regarding professional development**

When asked if he thought that the school provided for adequate professional development for the individual teaching staff, John responded by saying that he thought that what the school offered was only adequate for some subject areas and possibly only adequate for a few individual teachers. He believed that other professional development opportunities, for other subject areas, were not adequately addressed at the school. He suggested that the school seemed to present professional development opportunities to the teaching staff only if that professional development could be seen to be directly meeting the needs of the school. John believed that the school was not that concerned with the actual specific needs of the individual teachers (*Interview with John, Friday 12/05/2006*). This sentiment fits well with the

yellow system of thinking where individuals tend to have a strong sense of independence, individual competence, and self-worth. Employees require access to adequate resources and further professional development that address their needs and aspirations. Employees should be employed in roles that they naturally fit (Beck & Cowan, 2006).

*“A mandatory number of days for each year regarding religious education are provided for by the school. Other opportunities as they occur are sometimes offered by outside agencies. One such agency is the Queensland Studies Board. However, these are usually infrequent. In general the school and the Catholic Education Office seem to provide opportunities for professional development when they see fit. Although I think that provisions for religious education are good I would like to see more assistance with the implementation of the junior curriculum. I would also like to see other opportunities made for other subject areas in the school. It would also be advantageous and useful if all school staff were asked to consider what they would like to do. As far as I can recollect this has not occurred so far.” (Interview with John, 12/05/2006, p. 15).*

### **Perceived role of school administration**

Another area of conflict for John was with his perception of the role of the school administrative staff, who should as John suggested, adequately consult and allocate adequate resources and personnel and to ensure that the delivery of the curriculum was adequate. They should also oversee the wellbeing of all school members of the school community. However, John believed that too much time and effort was spent on ensuring the wellbeing of students as opposed to the wellbeing of the teachers of the school. He also felt that resources were being allocated at the whim of the administrative staff (*Interview with John, Thursday 18/05/2006*). This way of thinking is expressed in the orange value meme as self-orientated and at this particular level, individuals know what their needs are and these should be addressed. Priority should be to self, rather than to community needs. Bureaucracy and heavy structured systems are not valued (Beck & Cowan, 2006).

*“It is always the same. You, know I have had to justify on more than one occasion why I have told a particular student off for disturbing a class. I don’t see why teachers should have to continually justify their actions all the time. One minute you are expected to act as a professional and the next you are treated as though you are a child yourself, talk about frustrating.” (Interview with John, 18/05/2006, p. 11).*

### **Management of crisis and conflict**

When John was asked how he managed stress he responded by saying that:

*“I cope with stress by internalising it. Sometimes I have discussed stressful episodes with others, such as with my wife or those teachers that I feel comfortable with. However, I usually cope by walking and getting away from the situation or context. Doing non-work related things that I enjoy for example like listening to music.” (Interview with John, 18/05/2006, p. 14).*

He also stated that if he felt threatened by a stressful situation that he could not control then he would seek assistance, a trait which is common among those that think in the yellow value meme. Yellow thinkers can function in isolation or in groups, based on the situation and required output (Beck & Cowan, 2006).

When asked to comment on the provisions that the school made available for teaching staff and school administration that were possibly suffering from stress, John said that there was provision made available for staff and that he considered it to be adequate (*Interview with John, Thursday 18/05/2006*).

*“One provision is offered by Centre-care. They can provide a counsellor every Thursday by appointment. Also teaching staff can contact the teaching union and this can provide counselling if required by teachers. Yes, I would say that I am happy with these provisions for teachers.” (Interview with John, 18/05/2006, p. 15).*

### **Assertions regarding John**

John seemed to hold that he and not his environment was responsible in bringing about change which would suggest that he had an internal locus of control. He also had a stronger self-efficacy belief when compared with Samantha. John had a higher acceptance score in the yellow belief system and the following assertions seem to fit this way of thinking very well. Self-confidence and feelings of self worth are some characteristics of this belief system. When John was asked how he managed stress he responded by saying that he coped with stress by internalising it. Sometimes he would discuss stressful episodes with others, such as with his wife or those teachers whom he felt comfortable with. John usually coped with stress by walking and getting away from the particular stressful situation or context. He also liked to listen to music to take his mind off stressful episodes. John also stated that if he felt threatened by a stressful situation that he could not control, he would seek assistance. In respect to collegiality, John spent the least amount of time in the school speaking and socialising with other members of the school staff. He was observed to disappear whenever he had the opportunity to do so, such as at the conclusions of staff meetings or morning briefings. He really did seem to like keeping his own company. Often spending much of his time when at the school in his art classroom listening to music. These views and observations were consistent with the yellow way of thinking.

### **4.7 Case study: Portrait of Mark**

#### ***Vignette***

According to a conversation with Mark (*Wednesday, 25<sup>th</sup> April 2007*) he had been teaching junior science, religious education, information technology and communication, and senior geography in his present position for over 20 years. In total Mark had over 30 years teaching experience in government and non government schools in the local township and had not ever taught elsewhere. He was the second longest serving teacher at St Catherine's High. Mark was of Italian descent and his family had lived in the township for over a hundred years. He seemed to have much knowledge of the inhabitants of the town, which he thought was an advantage when there was a need required for him to speak with parents.

Mark considered himself an avid Catholic. He felt that his faith was central to his persona.

### **Classroom observations**

Mark was observed in the teaching of students in the subject area of religious education, which was one of his areas of expertise. The researcher initially, made a request to observe other teaching subject areas, however, Mark declined the request.

According to Mark the teaching environment where he taught religious education was thought to be one of the best in the school regarding resources. The environment consisted of a room that had recently been recarpeted. Benches that contained computers were situated around three quarters of the room's wall space. Recently purchased tables and chairs were positioned in rows that faced an electronic 'smart' board that took the place of a standard white board. Mark was quietly excited as he explained to the researcher how the 'smart' board differed from the usual white board (*Lesson observation with Mark Tuesday, 3<sup>rd</sup> April 2007*).

*“The smart board is just great. You can hook it up to a laptop and the kids can interact with it. It's great to get some of the students to actively take part in lessons. Before you had to continually write notes regarding lesson content with a set of board markers. The pens did not last that long and often dried up. Also it used to take me at least 15 minutes to write the stuff as well. I often found that when I had my back to the class when writing lesson content on the old style boards, the students would play up. Now there is less reason for them to lose focus. You know these new boards are just great. It's a shame though that not all the teaching areas have these.”* (*Lesson observation with Mark Tuesday, 3<sup>rd</sup> April 2007*).

In addition however, Mark was never seen to use the smart board whilst being observed during the course of the study. He was often seen at the front of the classroom sitting on top of his desk. Mark rarely was observed to move from this particular position. This particular position placed him high above the students. During a particular lesson with a group of year 8 students, Mark discussed Easter

with the class. Whilst sitting on his desk, he proceeded to talk at great length to his students on this particular theme. During the course of the discussion, students were encouraged to call out answers; they were not expected to raise their hands. As the discussion ensued talk began to lose focus on the theme of Easter and become focused around the meaning of people's names in the bible, and to the meaning of names used in different cultures. At one point students were generally surprised that Indonesian people did not have family surnames, this seemed to enthuse Mark greatly (*Lesson observation with Mark Tuesday, 3<sup>rd</sup> April 2007*).

In regards to discipline, when any students became disruptive during lessons Mark would gently remind them to keep focused. Mark was never heard to raise his voice, he did not appear to be unduly stressed with excess noise in his classroom. At the conclusion to most lessons, students were actively encouraged to record homework details in their homework journals. Mark was observed to check these periodically to ensure that his students had complied with his instructions. Students were only allowed to leave the classroom when told to do so. They were not allowed to leave on their own volition. Mark always insisted that his students leave the classroom in a manner that indicated respect for others. He expected all students to place their chairs under their desks and remain in a standing position until he was satisfied that his students had complied with his instructions. In the yellow way of thinking individuals are not intimidated in the face of disruptive elements, they can remain calm and have an enhanced ability to take a contemplative attitude and rationalise realities. They also have a deep respect for others in terms of their needs and wants (Beck & Cowan, 2006).

*“You know I hate having to share classrooms with other teachers and their classes. People these days seem to have no thought for others. Common courtesy has gone out of the window I suspect. You know other teachers use my homeroom for lessons and often at the end of the school day the room has been left in a right mess. I have experienced chairs and desks being left all over the place. I just cannot work out why or how a teacher could allow these sorts of things to happen and take no action. I mean where are their manners? What kind of example are these teachers setting for their*

*students? I have thought about complaining to the senior management about this issue but I think that I would get a name as being some sort of a whinger.” (Lesson observation with Mark Friday, 20<sup>th</sup> April 2007).*

During the majority of lesson observations, the researcher had to wait outside his classes on many occasions. On one particular occasion Mark requested that the researcher allow him 15 minutes to set up his lesson before he could enter the room. The researcher tried in vain to reassure him and put his mind at ease. It was evident from the observations and many discussions that Mark exhibited some negative aspects that are often associated with individuals who think in the green value system. These individuals place priority on how others perceive them, especially if these perceptions are perceived to be negative. These perceived negative perceptions are then often internalised and can be felt as a cognitive stress. During a brief casual conversation with the researcher, Mark was asked if he was happy in general with teaching at the school. He replied by saying that he had known the school to be worse in the past.

*“If you had been here just 5 years ago, you would not have lasted. It was terrible. The school Principal was useless and incompetent. She just let the school run down, you know. Lots of teachers at that time just left. They couldn’t take it anymore. I nearly went myself however, I have always lived in this town and this is where my family lives. So I had to just put up with it for their sakes.”(Casual conversation with Mark Wednesday, 25<sup>th</sup> April 2007).*

The above statement complies with the purple value meme way of thinking, in which the family are seen to be of high importance. Individuals will often tend to self-sacrifice for their family needs. Individuals may as a consequence be very committed to home and family relations. Self is sacrificed without question for the group (Beck & Cowan, 2006).

Mark was also a teacher who seemed to prefer his own company to that of other members of staff. He was observed on many occasions to sit alone in the teachers’

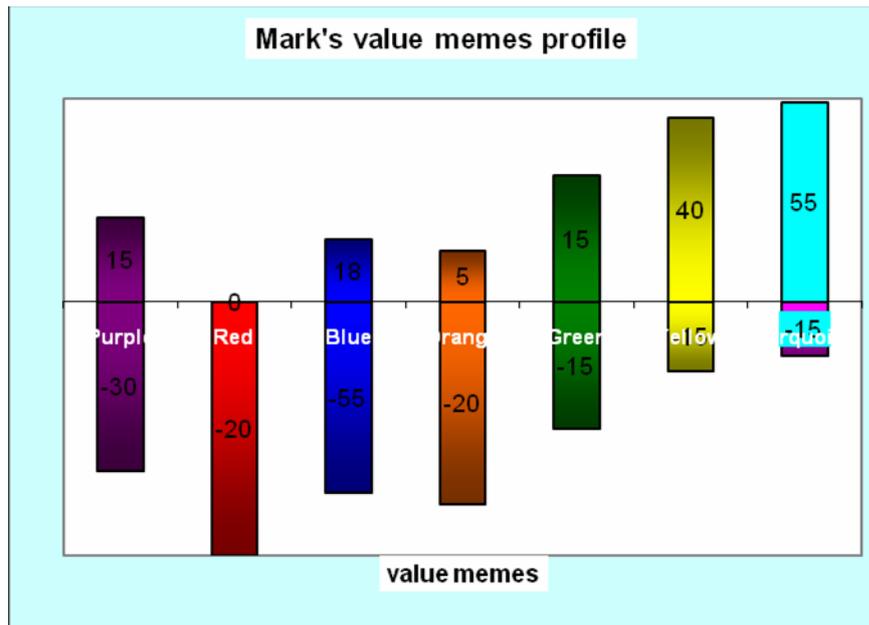
preparation room often sitting at his desk and preparing work for his students. Mark, like Samantha, was observed to be frequently absent when others were actively engaged in conversation. He did not seem to actively pursue or speak with many of his colleagues. Mark would only engage in conversation if another member of staff initiated the conversation (*observation with Mark, 09/08/2006*).

Individuals who think in the yellow system tend to exhibit these traits. Although they value the company of others, they do not always need to be around them. They are often happy living and working in isolation. Personal space and freedom inspires them. In this level, individuals tend to have a strong sense of independence, individual competence and self worth (Beck & Cowan, 2006).

**Table 12 Mark's values test results**

%	Yellow	Orange	Red	Purple	Blue	Green	Turquoise
99	59	74	41	29	61	50	33
90	51	63	39	28	60	49	32
80	40	51	27	19	45	37	23
70	36	46	23	16	40	33	19
60	33	41	19	13	35	29	16
50	29	37	15	10	31	25	13
40	28	35	13	9	28	23	12
30	24	31	9	6	24	20	8
20	21	26	5	3	19	15	5
10	16	21	0	0	12	10	1
Acceptance	<b>40</b>	<b>5</b>	<b>0</b>	<b>15</b>	<b>20</b>	<b>15</b>	<b>55</b>
Rejection	<b>15</b>	<b>20</b>	<b>55</b>	<b>30</b>	<b>0</b>	<b>15</b>	<b>15</b>
-10	5	1	19	15	1	5	14
-20	8	6	26	22	7	8	19
-30	10	9	32	27	11	10	24
-40	12	12	38	32	15	12	28
-50	13	14	40	34	17	13	30
-60	15	17	46	39	21	15	34
-70	18	20	51	44	26	18	39
-80	20	24	58	50	31	21	44
-90	27	33	75	65	43	29	55
-99	29	34	81	69	44	31	60

**Figure 6 Mark's value memes profile**



**Mark's value meme profile (portrait)**

According to the values test (see Table 12 and Figure 6) Mark scored highly in both the turquoise (HU, holistic) and yellow worldview (GT, Systemic) values memes. Both are concerned with the theme of community (Beck & Cowan, 2000).

Turquoise was Mark's dominant values level. 'Turquoise' people value all life as a whole. Individuals who think in this level tend to be conceptual, value learning and search for meaning and purpose in their life. This search can sometimes reach spiritual levels. The level of thinking in turquoise people is also generally globalistic, extending across boundaries. People who value this belief system also have a holistic perspective on problems. Persons thinking in this value meme exist in relationship to collective order, not just the self. In turquoise, one learns not only in observation and participation but also through the actual experience of simply being. The value meme has certain belief characteristics: the world is seen as a single organism, which is dynamic with a collective mind; less is seen as actually more in a minimalist world; the self is seen as not only being separate and distinct but also being part of a blended compassionate whole; all living entities are seen as being important and are required as an integrated system; an ecological awareness of the oneness of all life on the earth is espoused; and holistic thinking, and cooperation is expected amongst individuals. The self believes in the evolution of the spirit as belonging to an ongoing

conscious system, and the universe is seen as a single entity of balanced interlocking forces (Beck & Cowan, 2000).

Mark also scored relatively higher than the general population in the yellow worldview (GT, Systemic) values meme but not as high as the turquoise value memes. This level is also self-sacrificial in orientation. Mark accepted this particular worldview because he felt that everyone was entitled to have their own worldview and their own point of view and this perspective was similar to that expressed by Samantha. An aspect of some individuals who think in this particular level is to feel the need to withdraw from groups and become individualistic. Other people especially team orientated organizations such as schools may perceive them as being dysfunctional, resulting from the fact that they don't generally like to participate in groups, games and have a preference to work alone. Mark was observed on many instances to withdraw from other members of staff especially at the conclusion of staff meetings. He was observed on a daily occurrence to be sitting at his desk in a staff workroom (Beck & Cowan, 2006).

Individuals tend to be not impressed with status or materialism, however, they are or can be influenced by knowledge and believe information is a key to solving problems. They think systemically and holistically, and are the least egotistical of any of the value memes levels. Such an individual also appreciates one's unique abilities and limitations. However, they can become irritated and frustrated with the rigid thinking of others and often feel that they are misunderstood. Individuals may also feel uncomfortable with emotional expression, which is often viewed as being pointless. The value meme has certain belief characteristics: individuals should be able to accept paradox and contradictions; life is seen as consisting of natural systems, forms and hierarchies; existence is valued over any form of materialism; functionality, flexibility and spontaneity should have the highest priority; and the discovery of self and personal freedom should be without harm to others (Beck & Cowan, 2000).

Mark also scored relatively higher than the general population in the purple values meme level where the world is seen as a mystical and sometimes threatening place. 'Purple' people find safety within communities that they live in, where others look

out for each other. Spiritual beliefs, traditions, and rituals are valued. In the present world, people in this values meme live in small townships, ethnic neighbourhoods, or tribal communities. Marriage and family relations are valued highly and people in this system may as a consequence be committed to home and extended family relations. This was evident in the fact that Mark, like John, had always lived and worked in the same township. The value meme has certain belief characteristics: one should observe rites, rituals, seasonal cycles and tribal customs; sacred objects, places, memories and events should be preserved; allegiance should be shown to elders and customs; the world is seen as being composed of good and bad; and rules are black and white (Beck & Cowan, 2000). Mark read the portrait profile and was given the opportunity to comment on the assertions; he concluded that they portrayed an accurate representation of the ways in which he thought.

#### **Mark's value meme profile (non-trait)**

Mark strongly rejected the orange worldview (ER, Multiplistic) values meme that has a focus on innovation, material gain, possessions, competition and the using of technology. This was evident during one of the conversations with the researcher in which Mark stated that he was happy with the resources that he had been given for his classes. Mark was very similar to Samantha and John in the fact that they also did not seem to be that concerned with material possessions. When asked during a brief discussion whether he had any aspirations for promotion or career enhancement he expressed little concern (*conversation with Mark Wednesday, 25<sup>th</sup> April 2007*).

Although like John, Mark considered himself to be religious he rejected some aspects of the blue worldview (DQ, Absolutist) values meme, which is indicative of negative feelings regarding highly rigid systems such as religions (Beck & Cowan, 2000). His rationale for rejecting aspects of the blue level of thinking was based on the notion that the blue worldview included the belief that there was only one right way to live, with which he could not agree. This sentiment was the same as expressed by John. This notion conflicts with the closed blue system that is concerned with self-righteous beliefs.

Mark also rejected the red worldview (CP, Egocentric) values meme because those individuals in this value system are reluctant to listen to others' points of view. They

do not value the experiences of others either, unless it has a positive repercussion for them in terms of further control or in gaining power. Self is seen as primary at the expense of others, which was not congruent with Mark's way of thinking (Beck & Cowan, 2000).

Mark's overall acceptance scores for sacrificial thinking (the combined scores of turquoise, green, blue and purple) were much higher than his expressive scores (these are the combination scores of yellow, red and orange). This would be expected for people who value the community. Professions that best suit the self-sacrifice values memes are those that usually involve working with other humans such as health providers, and education (Beck & Cowan, 2000). These results are very similar in comparison with Samantha and John's scores.

### **Responses to open-ended questions**

#### **Mark's beliefs and values regarding education**

Mark responded when being interviewed that he saw the purpose of education as being the process where individuals are developed in all their facets. He believed in a holistic education that should provide society with well-educated individuals (*Interview with Mark, Wednesday 09/08/2006*).

*"I think that the purpose of education is to develop the whole individual and to produce well rounded and educated students. It should not just be about imparting subject specific knowledge. Schools and society should be thinking about a holistic approach. There are so many aspects to an individual such as making them aware of how to treat others and the planet in which they live on. However, I would have to say that it is sometimes difficult to achieve a balanced and holistic education due to all the outside constraints placed upon teachers these days such as from outside bodies. Take parents for instance they only seemed to care about their student's results and their position in the class." (Interview with Mark, 09/08/2006 p. 60).*

The statement above is compliant with the yellow value meme of thinking. In this particular worldview way of thinking, priority is placed on the acquisition of new holistic knowledge. A good knowledge base and competency have high priority in this meme. (Beck & Cowan, 2006). This correlates with the results that were obtained from the values test questionnaire.

When asked what he believed to be the role of teachers in the context of teaching and learning, Mark responded by indicating that teachers should instil a culture of lifelong learning into their students in order for them to take control over their own learning. This statement fits well with the yellow way of thinking, which is open to new ways of learning at any time and from any source. Learning is characterised by information gathering, the ability to access knowledge on multiple levels throughout ones life (Beck & Cowan, 2006).

In addition, when asked what he thought should be included and excluded in teaching, Mark responded by saying that schools often provide too many subject choices for parents and students alike. He also suggested that traditional subjects were often suffering from receiving inadequate resources at the expense of newer subject areas. Mark said that he also believed that students should be taught basic traditional skills such as spelling and punctuation. This way of thinking is an acceptance of the purple way of thinking that is concerned with keeping things with tradition (Beck & Cowan, 2006).

The following statement indicates Mark's clear rejection of the orange level of thinking in which high precedence is placed on the use of new technologies and science (Beck & Cowan, 2006).

*"I personally think that 'new age' subjects should be dropped from the curriculum. The old traditional subject areas should take precedence such as maths, science and English. Today I think that schools including this particular school offer too many subject areas. This can provide confusion for students and their parents. Also having too many subjects takes valuable resources from the traditional subjects. Society in general has often criticised schools*

*for not teaching students the basics and I tend to agree with their sentiments. I think that the spelling, punctuation, basic science, and maths skills of students is not of the same calibre as that of say ten years ago. Kids seem too reliant on the use of computers and calculators these days.” (Interview with Mark, 09/08/2006 p. 60).*

The rejection of an aspect of the orange way of thinking, which places precedence on using the most up to date technological advances, can be seen in the following interview extracts. Mark indicated during interview that he had noticed many changes take place in the ways that he taught. The changes he said were as a direct result of the implementation of new technologies into the classroom environment. Such technologies included the personal computer and ‘smart’ boards. He purported that the new technologies were a probable cause of students not being able to spell correctly, which he thought should be of primary concern for schools and society (*Interview with Mark, Wednesday 09/08/2006*).

*“Yes, I have noticed some changes in my teaching over the years. I have seen the introduction of new technology into schools. By technology I refer to the use of personal computers and so called smart boards. I have to use these particular forms of technology more and more in the classroom. Even students are now required to complete most of their assignments using the computer. Lesson content I have found has to be much more intense these days. I have found that I have to be more prepared for lessons than I have had to be in the past. I also have to be able to problem solve much more than I have had to in the past, for instance when a computer invariably crashes. I am not that sure or convinced whether the use of computers is a good thing. I believe that students seem to be becoming too reliant on the machines. I also think that students are in some circumstances are losing the ability to think for themselves. They are relying I believe too much on the use of computers to do the work for them. I also suspect that this ‘reliance’ also applies to teachers having to spoon-feed them as well. Generally I think that*

*most changes to teaching have occurred as a result of the availability of computers. Schools have been encouraged to use computer systems more and more. Everything is becoming computerised these days. Look even universities require that their students' word-process their assignments.” (Interview with Mark, 09/08/2006 p .60).*

In regard to Mark's beliefs regarding what activities were the most useful or beneficial for student learning, he responded by saying that he believed that teachers should instruct their students. He thought that traditional teaching methods with the teacher in control and the students as passive learners was the best approach for himself to teach and students to learn in schools. Mark also believed that students had a role to play in their own learning in that he thought that they should be concerned with listening to instructions provided by a teacher and then doing their best. He said that they should be co-operative and interact in a meaningful way and not distract themselves or others from the task at hand. These traditionally held beliefs are further confirmation of Marks acceptance of thinking in the blue value meme system (*Interview with Mark, Wednesday 09/08/2006*).

*“Look to be honest with you I believe that the old, tried and tested direct teaching and instruction methods of teaching provides the most useful activities to facilitate student learning. Now I do realise that some teachers would not agree with this sentiment however, it works for me. I personally do not like to see students working in groups. When this happens lessons fall apart. Students invariably become too noisy and distract others from the task at hand. Also they lose focus and just end up talking about non-school issues. You know it ends up becoming a complete waste of time for all concerned. I like to be in control and dictate what goes on in my classroom not the students after all that is my prerogative. Clearly expressed activities provide for learning to take place. As I have said before I do not think that students learn best in groups. I have experienced too many chaotic lessons as a result. You know students simply cannot be trusted in class. They go off on a tangent*

*and do their own thing. Too many would rather muck around and disrupt the learning of others. It is important that teachers control the learning environment. Students that are co-operative seem to learn the best” (Interview with Mark, 09/08/2006 p. 60).*

The statement above also complies with the blue level of thinking. Blue on the surface appears to value team building. However, the reality is the blue [individual] values a chain of command based on perceived legitimate authority. A directive, authoritative leader leads the team or student class and the blue leaders assume that their way is the best (Beck & Cowan, 2006).

### **Mark’s values and beliefs regarding change and conflict**

For Mark, he believed that unmotivated students were the most frustrating aspect of teaching. He indicated that he found this aspect to be very stressful for him and thought that too much emphasis was placed on individual teachers to rectify the concern. Mark firmly believed that the focus of responsibility should be placed on individual students to change their own behaviour” (*Interview with Mark, Wednesday 09/08/2006*).

The precedence placed on students having to manage their own behaviour as opposed to having their behaviour managed by an individual in authority is clearly in line with the orange value meme system way of thinking and operating. Where independence and autonomy are sought and are desired attributes of individuals (Beck & Cowan, 2006).

*“My greatest challenge in teaching I would have to say concerns student motivation. I have found it very stressful to try to motivate students to learn. Too many of my students seem to think that school is a place for them to chat and muck about. They seem to expect to get things today with little effort. It seems if they don’t succeed then they try to put the blame on someone else. Invariably parents and senior management blame the teacher, more often. They should be supporting us not blaming us. Yes, that is the greatest challenge I*

*think. Students need to take responsibility for their own actions.”*  
*(Interview with Mark, 09/08/2006 p. 61).*

He said that he dealt with this challenge by ensuring that he was well prepared for lessons. When asked what specific changes he would like to see occur in his school, he responded by suggesting that the school needed to be cleaner. By cleaner he was referring to litter and graffiti on some of the school buildings. He proposed that the school should hire additional cleaners and punish offenders more severely. The punish sentiment is characterised in the blue way of thinking with respect to obedience and conformity to authority (Beck & Cowan, 2006). Mark was asked to respond to a series of questions that regarded his perception of conflicts between what he believed about teaching and what he was actually allowed to do.

*“I would say that discipline really frustrates me the most. I am sick and tired of students being given too many chances at the school. It’s not fair on myself or on the other students in my classes. I have tried to get the senior management to deal with more urgent and problematic cases. However, they just seem to send them back. Students are not even expected to apologise these days. It’s like the student is put first these days. I also don’t like having to justify my actions regarding discipline issues. It makes me feel very angry. It’s like they don’t believe me. I should be supported and believed. They should treat me as a professional. After all teaching is supposed to be a profession isn’t it? Classroom teachers should be given more power to deal with unruly students. There are too many procedures and processes to be followed here.”* (Interview with Mark, 15/08/2006 p. 62).

This statement above is an example of the acceptance of the blue way of thinking where there is only one true way and individuals should be disciplined for their transgressions. It also suggests an acceptance of the red value meme where threat is perceived to be all around and it is a fight for survival especially when you are on your own (Beck & Cowan, 2006). He also reiterated that discipline and the learning environment caused most conflict for him. By learning environment he was making

reference to having to use computers in the classroom that were invariably too slow or kept breaking down.

When asked how he managed personal autonomy with school conformity he responded by saying that it was a very difficult question to answer.

*“The way that I manage my own personal autonomy with school conformity is a good question but very difficult to quantify. I see that the way in which I teach my classes as being an area where I have some degree of personal autonomy. An area of the school in which I see myself conforming to, is with having to conform to policies on discipline issues that I often don’t agree with. This is an area that is very difficult for me to accept. But, accept them I do. After all no one seems to listen to your concerns at this school. If they do then I don’t see them acting on it. I therefore work in this schools system, but am mindful of the things that I have control over, and control them I do ” (Interview with Mark, 15/08/2006 p. 62).*

The above quotation complies with the yellow way of thinking where individuals can accept paradox and contradictions and work in systems in a flexible way. They can accept inevitability and can find a natural mix on functionality and flexibility. In other words individuals often have an ability to take a contemplative attitude and rationally appraise realities.

Mark was asked if he was happy in his present position. He responded by indicating that in general he was happy in his job. However, he also responded by saying that he would be much happier if the senior management would listen to his concerns in respect to student discipline, and this would make him feel better.

*“Who is totally happy in their jobs, these days? There are always some aspects to a job that are a pain to put up with.” (Interview with Mark, 15/08/2006 p. 62).*

When questioned further, Mark admitted that he had thought about leaving teaching on many occasions (*Interview with Mark, Tuesday 15/08/2006*).

*“Yes, to be honest I have been unhappy on many occasions to the point that I have seriously considered leaving teaching. This unhappiness is due to constant stress and pressures that are continually imposed on me from parents, students and management. However, the reason that I have not taken the issue seriously is the same for most people I suppose and that is we all need money and a secure job these days, certainly if I was on my own and did not have family commitments then I would probably not be teaching today. I have a son and daughter at university and I have to sometimes help pay for their accommodation. Also, my age goes against me employers are more likely to employ youngsters these days. After all it’s cheaper for them. I also have many friends and relations in the town. If I were to change jobs then I would have to leave the area.”*  
(*Interview with Mark, 15/08/2006 p. 63*).

‘Purple’ people find safety within communities that they live in, where others look out for each other. In the present world, people in this values meme live in small townships, ethnic neighbourhoods, or tribal communities. Marriage and family relations are valued highly and people in this system may as a consequence be committed to home and extended family relations and this was evident in the statement above (Beck & Cowan, 2006).

When Mark was asked if he felt overloaded with work commitments he replied by saying that he was all the time.

*“Yes, all the time I do. Especially with all the paperwork that we have to continually fill in and complete. Not only do you have to teach you also have school duties to do, this is because the school is small and you are expected to cover extra lessons, mainly to save the school money. Meetings take up a lot of time as well. Most meetings that I have attended have been a waste of time in my*

*opinion. They have served no real purpose what so ever except for the senior management. No one seems to care or listen to our concerns any more. Too many people seem to drone on at meetings without ever actually saying anything of any use. The meetings that I have attended seem to last forever, when they could cover all issues in about 10 minutes. Although I must admit it was worse a few years ago. Then the school principal was terrible. The school was left to run down and many long serving teachers left.” (Interview with Mark, 15/08/2006 p. 63).*

Part of the statement above conveys the acceptance of aspects of the yellow value way of thinking, where a person is often disinclined to spend much time and effort and energy on perceived pointless meetings, and they also have a dislike for trivial interpersonal gamesmanships or pointless interpretations or contrived layers of meaning or semantic trivia. The yellow value meme thinking individual, readily values good content, with clean information that gets to the point of an issue, and likes open channels and has an attitude of open questioning and discovery (Beck & Cowan, 2006).

Regarding resources Mark perceived that the school suffered from some internal conflict between different departments in respect to who actually got funding for equipment. This can be gleaned from the statement below.

*“In answer to your question I think that we as a school don’t have enough resources. There never seems to be enough money to purchase the things that we need. Also some subject areas seem to get more funding than others. Take the health and physical education department for instance they have had tens of thousands of dollars spent on equipment so far this year and the history department is short of textbooks. How can that be fair?” (Interview with Mark, 15/08/2006 p. 63).*

In the orange value meme of thinking high priority is placed on resources and material procession. Life should be advanced through material gain. Individuals

often feel that they are in direct competition with others and need to feel satisfied (Beck & Cowan, 2006).

### **Mark's values and beliefs regarding professional development**

When asked if he thought that the school provided for adequate professional development, Mark responded by saying that he thought that the provisions offered were not adequate for his needs or for the needs of other teachers. He thought that the school should implement a working committee for ongoing professional development (*Interview with Mark, Wednesday 04/10/2006*).

*“I would have to say that there is very little or no provision for suitable professional development for the teaching staff at this particular school, that is of any use. I would like and hope to see more professional development provided for teachers. I mentioned earlier that one major concern that I have is in the amount of paperwork that is required when we have to write and prepare programmes of work for the subjects that we teach. We have never been adequately prepared for these tasks, especially when you consider the fact that the programmes are changed every year. You know we don't even get any extra time off the teaching timetable either. Most of the allocated time and provision for so called professional development here is usually for the betterment of senior management wishes. Look no one has ever taken me aside and said Mark, where do you want to be in the next 5 years? If suitable professional development were made available for teachers that was dependent on their particular circumstances that would improve things dramatically. Also I think that it would be helpful if the school introduced a professional development working committee of some sort.” (Interview with Mark, 04/10/2006 p. 67).*

In the yellow value meme way of thinking, individuals strive to become autonomous lifelong learners and can feel restricted in environments that do not provide provision to fulfil this need, if not fulfilled frustration and resentment can result. Individuals in the yellow values meme like to occupy a conceptual world of continuous change and

knowledge formation, the capacities to observe cleanly and learn quickly are essential. A life-long interest in learning and the acquisition of knowledge is, therefore a given (Beck & Cowan, 2006).

### **Perceived role of school administration**

According to Mark the role of the administration staff should be that of providing support for teachers and students and the general management of the school, for example, in the provision of providing adequate resources. He felt happy with the general organization of the administrative staff. However, Mark felt that some conflict existed in how he and other teachers perceived that students were disciplined in the school (*Interview with Mark, Wednesday 04/10/2006*).

*“I think that the administrative staff should be more sensitive to the needs of teachers. They need to be seen to listen to and act for teachers. Presently, administration seems to act more for students’ concerns. I have lost count of the times I have been in the office having to justify my actions when having to discipline unruly students. A lot of the students here just whinge and moan and blame everyone else for their misbehaviour. They seem to take no responsibility for their actions and what’s more they often get away with it.”* (*Interview with Mark, 04/10/2006 p. 69*).

### **Management of crisis and conflict**

Mark indicated that he coped with stress by withdrawing and becoming quiet. He believed that no one really cared or could help him anyway so he could not see the point of seeking assistance. He also internalised problems very much like Samantha and tried to rationalise things in an attempt to reduce such stress. Mark would also avoid any possible conflict with others. He often blamed external factors as possible causes of his stress (*Interview with Mark, Friday 15/08/2006*). Blaming external factors as possible causes of stress can indicate an external locus of control in individuals. Individuals with an external locus of control tend to exhibit less political behaviours, and are more likely not to attempt to influence other people than those with a high internal locus of control; they are more likely to assume that their efforts will be unsuccessful (Smith, 1989).

*“If I have to defend a position in the face of possible conflict then I would avoid it especially if I perceived negative consequences for me. When under stress I generally go quiet and just withdraw, that’s how I best cope with stressful episodes. I would not seek assistance as I think others are not really interested and cannot help anyway. Most stressful events have been caused by external factors. One recent example came about when I had to sacrifice my point of view many times and followed instructions set by senior management. This caused me a great deal of stress however; I felt that it would be better not to rock the boat. I have learned that it is best to keep quiet. What they don’t know doesn’t hurt them.”*  
*(Interview with Mark, 15/08/2006 p. 65).*

Mark believed that the school did have some provision for teachers that might have been suffering from stress. However, he was not too sure of the specifics and had not asked anyone about this particular resource.

#### **Assertions regarding Mark**

Individuals such as Mark, whose dominant values memes were of turquoise and purple, stress can occur when the safety of the group is threatened. Mark indicated that he coped with stress by withdrawing and becoming quiet. He believed that no one really cared or could help him anyway so he could not see the point of seeking assistance. He also internalised problems very much like Samantha and tried to rationalise things in an attempt to reduce such stress. Mark would also avoid any possible conflict with others. He often blamed external factors as possible causes of his stress. In respect to collegiality Mark was also a teacher who seemed to prefer his own company to that of other members of staff. He was observed on many occasions to sit alone in the teachers’ preparation room often sitting at his desk and preparing work for his students. Mark too, like Samantha, was observed to be too frequently absent when others were actively engaged in conversation. He did not seem to actively pursue or speak with many of his colleagues. Yellow value meme thinking individuals prefer the company of themselves as opposed to having a need to be others. However, they can and do work with others well when required. Other people especially team-orientated organizations such as schools may perceive them

as being dysfunctional, resulting from the fact that they do not generally like to participate in groups, games and have a preference to work alone. Possibly rewards and positive dialogue could reduce stress in such an individual as Mark.

## **4.8 Case Study: Portrait of Anne**

### *Vignette*

Anne had been teaching drama, dance, music and religious education and English for just over four years. She had been previously employed in one other school during that time period. Anne was the youngest and most recent arrival at St Catharine's High school having taught there for a period of just 12 months. The researcher had known her throughout this timeframe. During the early part of semester one during 2007, Anne was promoted to the position of a year 8 co-ordinator, which she had requested from the senior management of the school. During observations (*Observation with Anne, 13/08/2007*), she was seen as the most vocal of all the research participants and readily presented information to the research study.

### **Classroom observations**

Anne taught from a multitude of different physical environments. However, she taught her drama classes in the school hall. The hall was generally used once a week for assemblies and was also used during times of student examinations and school musicals. The physical appearance was typical of most school halls, in that it was the largest building in the school grounds. The hall itself was basically a large room that was surrounded with windows on all sides; students could enter the room via double doors that were situated at the front and at the rear of the building. Recently the hall had received some maintenance in the form of a renovation in which both the outside and all internal walls had been repainted, and in some instances some of the walls were replastered. Part of the halls floor surface was covered with carpet whilst the majority remained uncovered polished timber. At the front of the building taking pride of place was a large carpeted stage area from which the senior members of staff were often observed to sit during the course of whole school assemblies. The room had a series of electric fans that could be used to relieve the students from the sometimes-oppressive Australian heat that occurred during the school day. According to Anne the school at that time unfortunately, had insufficient funds to

purchase suitable air-conditioning systems (*Observation, and conversation with Anne, Friday 11/08/2007*).

During the periods of classroom observations Anne would always have her students wait outside the hall until she had time to retrieve a key to open the doors to gain entry. She complained on a few occasions that this was not an acceptable way to have to begin her drama lessons.

*“There are small things at this school that often create unnecessary challenges for me as a teacher, for example having to collect a key from the office so that I can gain access to the hall. I mean why don’t they just copy a key and let me look after it. It’s like they don’t trust me, or something. I have even offered to pay for a key myself but for some reason they won’t let me. It’s so frustrating making my classes have to wait. By the time we get into the room we have wasted at least on some occasions 10-15 minutes and the kids, well, most of them have lost focus by then.” (Observation with Anne, 11/08/2007 p. 2).*

Students on entering the hall would invariably all move to the centre of the floor area of the hall and sit down in a circle so everyone was facing each other. Anne would then clap her hands together to gain the students attention and the lessons would begin (*Observation with Anne, Friday 11/08/2007*).

During one particular lesson students were being taught how to prepare circus tricks, which were to be used for a play that was to be eventually shown to some elderly residents in an aged care facility in a nearby township. Students entered the hall as they usually did however, they were presented with a large wooden box that was placed in the centre of the hall. Most of the students became very excited and at the same time quite noisy. The box contained items that were to be used for the students’ tricks. Such items consisted of hats; hula-hoops, and grass skirts, juggling balls, soft toys and a couple of hobbyhorses. The students were requested to work out a scene as if they were performing magicians or circus entertainers. To facilitate this, students were divided up by Anne into groups of four. Each group was provided with

a prop to use from the wooden box. Anne then went to each group and proceeded to show them how to perform the skits with the issued props, after the demonstration each student was requested to imitate what she had shown them. After a couple of minutes the lesson was observed to disintegrate with students off task, with some running around and making a lot of noise. During this time, Anne was observed to be actively engaged in speaking with a group of students. She requested that all students were to stop performing and listen to her. Students were requested to sit on the floor and were also asked to provide an answer as to why this had occurred. One student shouted out that it was because of the noise and that some of the students were not doing what they were asked to do. Anne reminded the class that they were supposed to practice their skits for 10 to 15 minutes and then perform to the rest of the class. After which she was observed to spend some time chatting with a group of girls and encouraging them in their routine. All was fine for the first five minutes then unfortunately some of the students began to lose focus and become noisy. During this time, Anne was once again observed to be in deep conversation with a group of students. Again Anne addressed the class however; she also proceeded to move around the groups to ensure that they were all performing to a satisfactory standard. From the observation it became evident that Anne exhibited some traits that are associated with the green value meme way of thinking. Green values relationships and community. All members of a group are valued and active participation in encouraged (Beck & Cowan, 2006).

It was during this particular observation that Anne expressed some concerns, regarding perceived conflicts with some of the administrative staff.

*“I have to be careful about the noise that some of my classes make. The school principal has on some occasions warned me about the noise levels. You see his office is quite near the hall. He always seems to check up on me to see whether the noise is a direct result of what the students have to do during the lesson or whether it is a result of me not being able to control them.” (Observation with Anne, 06/09/2007 p. 6).*

In the green way of thinking individuals are very susceptible to group think. The above statement indicates that Anne was very concerned with what her school Principal thought about her, especially in terms of her being able to control her classes. The need to fit and feel needed and competent can overwhelm such an individual.

Groupthink is a type of thought exhibited by group members who try to minimize conflict and reach consensus without critically testing, analysing, and evaluating ideas. Individual creativity, uniqueness, and independent thinking are lost in the pursuit of group cohesiveness, as are the advantages of reasonable balance in choice and thought that might normally be obtained by making decisions as a group. During groupthink, members of the group avoid promoting viewpoints outside the comfort zone of consensus thinking. A variety of motives for this may exist such as a desire to avoid being seen as foolish, or a desire to avoid embarrassing or angering other members of the group. Groupthink may cause groups to make hasty, irrational decisions, where individual doubts are set aside, for fear of upsetting the group's balance. The term is frequently used pejoratively, with hindsight (Smith, 1989)

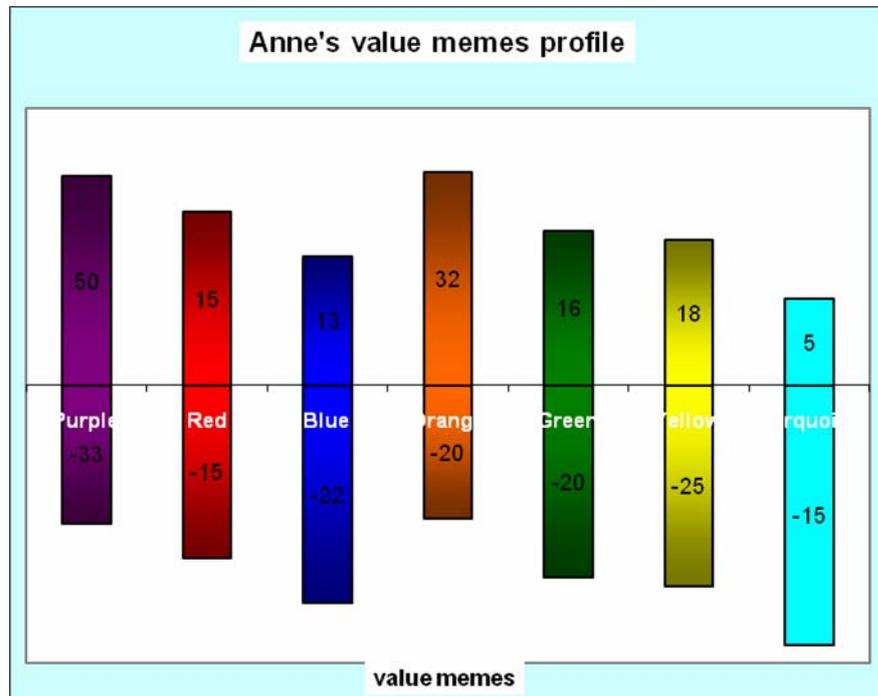
Anne invariably concluded her drama classes the same way as they had initially commenced. Students were all requested to move to the centre of the floor area of the hall and sit down in the form of a circle so everyone was facing each other. Anne would then clap her hands together to gain the students' attention. She used this procedure as an opportunity to firstly gain control of her students and also to provide feedback, with respect to what had transpired during the lessons (*Observation with Anne, Wednesday 06/09/2007*).

Anne was a teacher who seemed to prefer the company of other members of staff who had similar views and beliefs as she did. She was observed on many occasions (observations with Anne, *08/03/2007, 17/04/2007*) to sit with the same teachers' in the preparation room, usually in deep conversation. Many of the overheard conversations would concern problematic students at the school. The need to be with others that have similar views and beliefs are traits of the green value meme of thinking. Socialising and communication have very high priority (Beck & Cowan, 2006).

**Table 13 Anne's values test results**

%	Yellow	Orange	Red	Purple	Blue	Green	Turquoise
99	59	74	41	29	61	50	33
90	51	63	39	28	60	49	32
80	40	51	27	19	45	37	23
70	36	46	23	16	40	33	19
60	33	41	19	13	35	29	16
50	29	37	15	10	31	25	13
40	28	35	13	9	28	23	12
30	24	31	9	6	24	20	8
20	21	26	5	3	19	15	5
10	16	21	0	0	12	10	1
Acceptance	18	32	15	50	13	16	5
Rejection	25	20	15	33	22	20	15
-10	5	1	19	15	1	5	14
-20	8	6	26	22	7	8	19
-30	10	9	32	27	11	10	24
-40	12	12	38	32	15	12	28
-50	13	14	40	34	17	13	30
-60	15	17	46	39	21	15	34
-70	18	20	51	44	26	18	39
-80	20	24	58	50	31	21	44
-90	27	33	75	65	43	29	55
-99	29	34	81	69	44	31	60

**Figure 7 Anne's value memes profile**



### **Anne's value meme profile (portrait)**

According to the values test (see Table 13 and Figure 7) Anne scored highly in both the purple (BO, animistic) red (CU, egocentric) and orange (ER, achievist) values memes (Beck & Cowan, 2000).

Purple was Anne's dominant values level. In the purple values meme level the world is seen as a mystical and sometimes threatening place. 'Purple' people find safety and solace within communities that they live in, where others look out for each other. Spiritual beliefs, traditions, and rituals are valued. In the present world, people in this values meme live in small townships, ethnic neighbourhoods, or tribal communities. Marriage and family relations are valued highly and people in this system may as a consequence be committed to home and extended family relations (Beck & Cowan, 2000). This was evident in the fact that Anne said that she often visited her parents and siblings who lived only a short distance away from where she worked and lived, however one must always consider alternative variables that could account for such visits by Anne. She might have a family member requiring care thus making such frequent visits necessary (*Interview with Anne, 08/03/2007 p.42*).

Purple individuals are also detail orientated and often indicate a strong kinaesthetic or emotional interpretation of the world. The value meme has certain belief characteristics: that one should observe rites, rituals, seasonal cycles and tribal customs; sacred objects, places, memories and events should be preserved; allegiance should be shown to elders and customs, the world is seen as being composed of good and bad; and rules are black and white (Beck & Cowan, 2000).

Red and orange values memes are both self [I] orientated. Both are concerned with a focus on the external world. Red 'Impulsive' power value meme, (C-P, egocentric); the red values meme is an express-self orientated values meme and an egocentric attitude is valued at this level. It emerges from societies in which purple values meme is dominant and where there is relative safety, allowing people to express themselves and be creative. The world is seen to be like a jungle where the strong dominate and the weak serve, therefore power is desired. People who value this value meme tend to assert for dominance. Red values meme has a present time orientation. What matters now is important and the future is not real. The value meme has certain

belief characteristics: the world is seen like a jungle that is full of predators; others should be dominated especially aggressive people; seeks immediate gratification; expects respect and attention; must defend reputation to avoid shame; should please self free from domination from others; and the world is seen as those that have and those that have not (Beck & Cowan, 2000).

The orange value meme (ER, achievist) self-orientated and in this level the world is seen as a place full of opportunities and resources. Capitalist values, technological advancement, economic power, and competition are valued within this level. In this level, priority is given to self-advancement rather than the community, bureaucracy and heavily structured systems are not valued. People who value this value meme have an entrepreneur perspective on life and for them manoeuvring within the rules of an organization or a system to get ahead, and testing available options in life to reach a goal, are common attitudes. The value meme has certain belief characteristics: that independence and autonomy should be sought; the truth should be sought on an individual basis, thoughts should be reflective and questioning an individual's values and beliefs; objective methods should be used to obtain and communicate knowledge; achievement, advancement and change should be sought out; and materialistic gain should be sought (Beck & Cowan, 2000). Anne read the portrait profile and was given the opportunity to comment on the assertions, and she concluded that they portrayed an accurate representation of the ways in which she thought.

#### **Anne's value meme profile (non-trait)**

Anne strongly rejected the yellow worldview because individuals who think in this values meme often feel the need to withdraw from groups and become individualistic (Beck & Cowan, 2000). However, Anne did not feel the need to do so, as she actively sought out some individual teachers for company.

Although Anne considered herself to be religious in the respect that she was a practicing Roman Catholic, she rejected some aspects of the blue worldview (DQ, Absolutist) values meme, which is indicative of negative feelings regarding highly rigid systems such as found in many religions (Beck & Cowan, 2000). Her rationale for rejecting aspects of the blue level of thinking was based on the notion that the

blue worldview included the belief that there was only one right way to live, with which she, like John and Mark, could not agree. This notion conflicts with the closed blue system that is concerned with self-righteous beliefs.

Anne also rejected the Green 'Communitarian' humanistic value meme, (F-S, relativistic); where the green values meme has self-sacrifice orientation with the goal of creating prosperous human communities. Concern for human feelings and needs, interdependence, and human relations are given priority in this level and the world is seen as a habitat where peace and prosperity must be achieved and maintained. Equity is a very real concern with individuals in the green worldview where they are concerned with everyone being treated the same (Beck & Cowan, 2000). Anne did not espouse to the idea that everyone should be treated equally. She strongly believed that, although everyone should have a place in this world, some individuals by way of their abilities should lead and control others.

*"In her own words "not everyone has the ability to be in charge. We are not all born equally; we are uniquely different, therefore, we are to be treated differently. Can you imagine us all having a say in how legislation is made in this country? There would be absolute chaos." (Interview with Anne, 08/03/2007 p. 42).*

Anne's overall acceptance scores for sacrificial thinking (the combined scores of turquoise, blue, green and purple) were slightly higher than her self-expressive scores (these are the combination scores of yellow, red and orange). This would be expected for people who value others and the community. Professions that best suit the sacrifice-self values memes are health, and education. Although these results are very similar in comparison with the other teachers' scores, significantly Anne scored higher than all participating teachers on the self-expressive value memes scores of red, orange and yellow, in other words self [I] orientated. All are also concerned with a focus on the external world (Beck & Cowan, 2006).

## **Responses to open-ended questions**

### **Anne's beliefs and values regarding education**

Anne responded when being interviewed that she saw the purpose of education as being the process where individuals are developed in subject specific facets.

*“I think that kids should be able to walk out of here [school] at the end of the day and have a certain knowledge base about the content that they have been taught. Yeah, wishful thinking, but by the content I mean whatever they are being taught in their subjects. Like life skills in health education, or whatever it may be in specific tasks in science or practical tasks in physical education for example.” (Interview with Anne, 08/03/2007 p. 42).*

When asked what she believed to be the role of teachers in the context of teaching and learning Anne responded by indicating that teachers should act as facilitators over the learning process in schools. However, she also expressed a belief that students had a role or should have a role in their learning.

*“I think that we are supposed to act as facilitators, to facilitate what they [students] need to know. I think that kids have to be responsible for the majority of their own learning, in some part I think that they should be responsible for the teaching as well. So I think that to some extent, that even though teachers should dictate what students should learn. I think that kids have a big part to play in their learning because they have control over their own behaviour, and classroom management should not always be the job of the teacher. Poor classroom behaviour has a huge impact on learning and teaching and I think that they have to own up to some of that responsibility, yeah. My own purpose for teaching is that I am good at it and that is one of the reasons that I am still here. I also think that I have a certain amount of knowledge that I should impart to kids. Yeah, so that's my purpose for teaching.” (Interview with Anne, 08/03/2007 p. 42).*

The statement above is compliant with the orange worldview way of thinking in that allowances are made for self-direction and expression and independence in learning opportunities that challenge and test existing skill sets. Teachers are seen to be more like coaches than lecturers and as such expect their students to assume more responsibility for their own learning where passive learning is not encouraged (Beck & Cowan, 2006).

### **Anne's values and beliefs regarding change and conflict**

For Anne, the management of student behaviour and dealing with students with special needs were perceived as being the most challenging and frustrating aspects of teaching. She, much like Samantha, also expressed concern with change that was imposed on teachers from the schools administrative staff that had been sanctioned without prior consultation with the teaching staff. However, unlike Samantha, Anne was much more vocal in her account of her perceived conflicts, which she perceived she had with her employing school (*Interview with Anne, Thursday 08/03/2007*).

*“At the moment dealing with special needs kids is my greatest challenge. That has been the hardest part, because I have had to restructure programmes of work for them. It has been a huge challenge to get the kids to understand the programmes. Occasionally, I have been provided with a teacher aide to help with the writing of these types of programmes. But, I don't think that the provision provided for teachers are adequate, we just don't get enough support full stop. I am at the moment only just coping, well just about coping with the situation. But, in general we are all not coping well at all. We are teachers and as such we have not been professionally trained to deal with these types of kids. The challenges that I have got at this moment are just too much. I don't know how far I can push these kids that I have at the moment. I am very worried that one of the kids may have a complete meltdown or attack someone physically. There is this one particular student that I am very scared to push. He is physically a very large and imposing child and if he were to have a violent reaction to me then basically I will be stuffed. Yeah, I have been very scared when*

*having to discipline him recently. You know it is amazing to think that only last year the school principal suddenly decided that we as a school community should accept these types of students into the school. I don't know what he was thinking because no one in the school has been trained to deal with these kids. Three of them are autistic children. It would have been nice if a process of consultation had been used in the first instance. Because I am also the year coordinator for these students it falls on to me to provide the necessary support systems to help these students and I am not given any extra time to help me with this.” (Interview with Anne, 08/03/2007 p. 45).*

When asked how she dealt with these perceived challenges Anne responded by saying that she used routine, structure and a lot of her ‘personal’ time.

*“In English for example I have to really structure the work for the kids that have special needs. I have to really thoroughly structure the lesson time. We have to do everything using a routine. So for example we have fifteen minutes of say language work at the beginning of the lesson. It's a routine that the kids now know. I have to set people with individual tasks to complete, like get them to hand out textbooks. This routine would not be deviated from. If it were I have learnt from experience that the kids would not be able to cope, as they need routine in their lives. They do not need complication. The other way that I deal with these challenges is to devote more of my personal time teaching to those kids than to the rest of the class. What I mean by personal time is the time set aside for my breaks. For instance I have had to set up separate English programmes, one for the special needs kids and one for the remainder of the class. Yeah, I have had to produce more work. You know I have spent an hour today of my free time setting up an extension activity for the brighter kids in the class so that I can spend more time with the kids with special needs.” (Interview with Anne, 08/03/2007 p. 45).*

Anne was asked to respond to a series of questions regarding her perception of possible conflicts that existed between what she believed about teaching and what she was actually 'allowed' to do.

*“What frustrates me most in my teaching role is a general lack of support. Yes, a lack of resources and support frustrates me. Also, little but annoying things frustrate me as well. I will give you an example for instance. I asked a member of administration for some assistance to help with a problem that I had with a simple door lock. The lock was faulty as I had problems locking and unlocking it. The lock was on a door to a room that I used for drama lessons. You can imagine the heat in summer with a room that has no air conditioning and not many windows. I simply needed to open this particular door to allow airflow around the room. You know the kids were just dying in there. Anyway the individual concerned responded by saying that a new lock would cost too much money to replace the old lock and that the school was short of funds anyway. Therefore, it was not going to happen. So the lock is broken, and it is too expensive to replace. For crikey’s sake I said, look it’s only a lock, just change the damn thing. I know it may seem a small concern but it affected us all. It frustrated me so much because I could not do anything about it. It was out of my control and that annoys the hell out of me.” (Interview with Anne, 08/03/2007 p. 45).*

*“I have found that I spend about ninety percent of my time on managing student behaviour instead of actual classroom teaching. I believe that we as teachers should be provided with more time to carry out our respective roles. We should have more support and extra time for students that have learning difficulties. I believe that I should get more support with these concerns. So there is a conflict of interest there. I cannot do what I need to do because I feel that administration is not supporting me adequately, so yes it is a conflict.” (Interview with Anne, 17/04/2007 p. 46).*

Anne also expressed concern in terms of the school environment in causing possibly further conflict for her.

*“The physical environment, like the school buildings have caused problems for many teachers. Without air-conditioning it is difficult to get students to perform to the best of their abilities in such conditions. Some rooms that I have been allocated to teach in are far too removed from others. Valuable time is lost walking around the school for such rooms. Some teachers are lucky enough to be able to use one classroom as their own. I unfortunately don’t have that luxury. So my classes are constantly changing from one room to another. I have one English class that I teach for example that have to use different rooms for lessons. This upsets the kids and me because we have no routine. Yeah, it makes a big difference. Apart from teaching I am a year coordinator and the room that they provide me with is just not private enough. Therefore, I cannot interview students or their parents in private. I need a proper office that is private so that I can do this job well. I do not get enough time allocated to act as year coordinator, period. Hence the desk (participant points to desk in room) looks like this. The room is cluttered with books and papers everywhere. My motto this year is ‘dump and run’. Like, I walk into this room and dump my gear down and leave quickly. I then have to spend most of my spare time chasing students with concerns.” (Interview with Anne, 17/04/2007 p. 47).*

Anne was asked if she was happy in her present position. She responded by saying that she was not and had decided that she would consider a different career altogether.

*“I was at an in-service course recently and there was this psychologist, and a speech therapist. You know, I was sitting in a room with them and I got to thinking, hey, I could do that. So yes I have very recently thought about leaving this job. I have to say that*

*I am not at all happy at this school. I believe that I am not supported here and I also think that the senior management team does not value many of us. Anyway, I have decided to pursue a career as a speech therapist. Yes, I know that I will have to spend money that I really have not got to spare, but I feel it will be worth it. What really got to me was being afraid of some of the students in this school. I have been on lunchtime duties and have felt intimidated by some of the older boys in year eleven, especially those that play football. On some occasions I have asked them to stop tackling each other. It is current school policy that they should not be playing a contact sport. Therefore, they should reframe from such potentially dangerous tackling. Anyway, I have had to put up with some insidious comments from these students when I have made requests for them to be careful. They don't seem to care what I have said and have continually disobeyed me. I went to see the deputy and the school principal on more than one occasion for assistance. They told me that I should be able to sort the problem out myself, as I am a trained teacher. Look, if I could sort the problem out myself then I would. However, I am at a disadvantage as I am not physically comparable with the students, as you can see I am relatively small in stature. Now I feel that I am unable to do my job properly and I have actively tried to avoid those students. Every time I see them I feel so stressed out. I really feel that I am not coping at all. There is no one that I can talk to at the moment. I feel so tired and drained at the end of each school day; it has been a struggle for me to actually make myself get to school recently. To be honest with you there have been times when I have just cried in frustration.” (Interview with Anne, 17/04/2007p. 47).*

The statements above were examples of Anne's acceptance of both the red and orange ways of thinking. Orange values, having access to adequate resources and support within this level, bureaucracy and heavily structured systems, are not valued. The value meme also has certain belief characteristics in that independence and autonomy should be sought. In the red way of thinking the world is seen to be like a

jungle where the strong dominate and the weak serve, therefore power is desired. People who value this value meme tend to assert for dominance they like to feel that they are in control. A red value meme has a present time orientation, what matters now is important and the future is not real. Anne perceived external influences to be the causal factors associated with increases in frustration and possible conflict that she experienced. In the latter statement, Anne seemed to exhibit a propensity to possible burnout from possible emotional exhaustion (Beck & Cowan, 2006).

When asked what she would like to see changed at her school Anne invariably responded by saying that she thought that the senior management of the school should consult with the teaching staff before decisions were imposed on them.

*“I would love to have more time for preparation for my roles as a teacher and as a year coordinator. Most days I find myself trying to juggle both of these roles. Yes, I need more time for these roles. Next year will be worse I have been told. This is what the senior management were talking about in the staff room the other day. The school principal was saying that in 2008 we are not going to get any prep time for the beginning of the year. We will only therefore have one week of prep time before we start teaching. We will not get any other free student time. This means that next year we will start the academic year without any subject meetings. The senior management are doing us no favours by sticking everything into one week; it’s ridiculous they always seem to make decisions without consulting us.” (Interview with Anne, 17/04/2007 p. 47).*

Anne also suggested during one interview that she would like to see changes made in the context of student disciplinary measures. She indicated specific changes in the roles of both the deputy and school principals (*Interview with Anne, Tuesday 17/04/2007*).

*“School management should have an impact on student discipline and make major decisions. But I think us down the bottom end of the food chain should be able to discuss such decisions with the*

*senior management. I think that the deputy principal should be more of a disciplinary force. Look I know that should not be her only role but, at the moment that is what I believe her role to be. I have spent most part of this year going to her for support regarding discipline issues instead of seeing the year coordinators. I know it was putting more pressure on her but the coordinators were not in my opinion doing their jobs well. I also think that the school principal needs to assert more of a presence in the school. He needs to visit the classrooms to see what is actually going on. Yeah, that would be good for him and the school I think. He also needs to teach a class or too, to gain empathy for teachers and students alike, to see what is going on in respect to student behaviour. At the moment they just seem to pass the buck back onto us. I feel like it is left to me to sort these types of issues. It's like I'm on my own and no one will back me up. Look we try to deal with problems ourselves in the classroom. We only go to the coordinators or the senior management when we cannot cope with the problem. They cannot seem to realise that. We use them as a last resort so they should help us in our needs more. If they don't want to help us out in this respect then they should give us more power to deal with these types of issues. We could set up some type of withdrawal system for the kids that continually misbehave. For example a withdrawal room where all the staff could assist.” (Interview with Anne, 17/04/2007 p. 49).*

The statements above were further examples of Anne's acceptance of both the red and orange ways of thinking. In the Orange thinking individual's values, having access to adequate resources and support within this level, bureaucracy and heavily structured systems are not valued. In the red way of thinking the world is seen to be like a jungle where the strong dominate and the weak serve, therefore power is desired (Beck & Cowan, 2006).

Anne purported to suffer from additional stress with having to teach outside the subject areas in which she had qualified. She found herself having to teach

‘unfamiliar’ subjects, and consequently had to also write curriculum material for such subjects without any assistance. Conflict also was perceived to have existed between herself and the schools deputy principal (*Interview with Anne, Tuesday 17/04/2007*).

*“I find it mystifying that the deputy principal is paid to oversee many subject areas but actually does nothing. She has the title of subject coordinator for drama when really I should have that title. I am the only teacher that is qualified in this particular area. You see the excuse for this is that the school is small and because it is small the teachers here are expected to carry out additional duties without any remuneration or be provided with any additional extra time. We just don’t seem to get on. I find that I don’t understand her and she probably feels the same about me. Sometimes I feel that she treats me with little respect, you know I don’t really know what her problem is. I sometimes think that she is out to get me. While I am on the subject I won’t mention any names, but there is another teacher in the school who always seems to be put in charge of the schools musicals. The last one that she did wasn’t that great you know it was a bit of a flop. I know that I could have done a better job myself.”* (*Interview with Anne, 17/04/2007 p. 49*).

The statements above are compliant with the red way of thinking which is express-self orientated. Individuals expect attention and respect for their needs. Employees will accept their places as their needs are secured. The world is seen as those that have and those that have not (Beck & Cowan, 2006).

### **Anne’s values and beliefs regarding professional development**

When asked if she thought that the school provided for adequate professional development for the individual teaching staff, Anne responded by saying that she thought that what the school offered was only adequate for some subject areas and therefore, only adequate for a few individual teachers. Much like John, Anne believed that other professional development opportunities, for other subject areas, were not being adequately addressed at the school. Anne also expressed concern that

the actual needs of the individual teachers were not being met (*Interview with Anne, Tuesday 17/04/2007*).

The statements above indicate once again an acceptance of the red way of thinking.

*“There is I think adequate time and opportunities provided by the school for a few of the subject areas, such as religious education, maths and science. However, if you are teaching in other subject areas then I think that there are far too few opportunities that are made available. For instance, I am not happy with the fact that I have not been provided with possible professional development opportunities to help me with the special needs kids. I feel that I have been used in this respect. I also have had aspirations for promotion; therefore it would be nice if I could be provided with appropriate help in this respect. However, I am under no illusions that the school administration knows this to be the case. They should take all teachers aside, say at the beginning of the year and ask us where we want to be in five years time. Because this has not occurred I believe that they don’t really care about us. Sometimes I think that we are just mere cogs in a machine to them. To be honest as long as they have their quota of teachers that are in front of classes then everything is ok to them. That’s all they really care about.”* (*Interview with Anne, 17/04/2007 p. 50*).

The concern expressed by Anne in the statement above for the needs of other teachers is a classic example of an expression found in individuals that think in the purple and green levels of thinking, where individuals consider others. However, Anne also referred to herself in the first person in many instances in the statements above by using the word ‘I’ a clear indication of an acceptance of both the red and orange ways of thinking. In both the red and orange values memes, the ways of thinking are self expressive orientated values memes and an egocentric attitude is also valued in both of these levels (Beck & Cowan, 2006).

### **Perceived role of school administration**

According to Anne the role of the school administration should be that of providing clear support for teachers and students and for the management of the school. Anne, much like the other teacher participants in the study indicated that she believed that a degree of conflict existed in how the school administration dealt with student discipline issues in the school.

*“The school administration must adapt and implement new methods of student behaviour management to incorporate the increase in school size. Current old methods won't be sufficient. Generally they should be more proactive. They should look after the teaching staff, a bit more. Many are not happy at the moment. Teachers need backing up when challenged by disruptive students. Senior management should get rid of those students that cause more hassle than they are worth. These students get far too many chances in this school. Everyone suffers for the few. It is a shame that teachers are not looked after as well. Many teachers have been left to fend for themselves at times. Look, if a teacher cannot cope with an issue then they should be adequately supported. Unfortunately, at present this is not the case.” (Interview with Anne, 17/04/2007 p. 50).*

The statements above are compliant with the red way of thinking which is express-self orientated. Individuals expect attention and respect for their needs. Employees will accept their places as their needs are secured. The world is seen as those that have and those that have not (Beck & Cowan, 2006).

### **Management of crisis and conflict**

Anne indicated that she coped with stress with difficulty. She internalised problems much like Samantha and Mark, and tried to rationalise possible issues in an attempt to reduce such stress. Anne would avoid conflict with others if at all possible” (Interview with Anne, Tuesday 17/04/2007).

*“I try to avoid conflict with fellow teachers as we all need to work together, although I know that this is not necessary easy to do.*

*Other issues can usually be talked through. I feel that we can come to some sort of understanding on how to deal with an issue. I try to separate myself from the problem. I need to remove myself from the situation for a while. Talking with others often helps. If workload is causing too much stress then I will seek help. I am a very practical person. I like to get on with whatever I need to do. Don't like to talk about it all the time and go round in circles. I would try to deal with it the best that I could at the time. Then I would go away and think about the situation in order to consider all the available options to help me deal with it appropriately. If the situation were beyond me then I would refer it on to others like administration. However, recently I must admit that there have been many instances lately where I have not been able to deal with such issues. If I am honest I have felt like I don't care anymore. Most instances of stress that I have encountered have invariably been the result of someone else's actions and I know that I cannot affect these issues by myself.”*  
(Interview with Anne, 17/04/2007 p. 50).

Ann spoke about rationalising her problems especially in terms of the perceived stress. This way of thinking fits well with the orange value meme level. Individuals in this level of thinking are determined and like to be in control. They rely on their innate abilities and competencies. However, when not in control they are more likely to become stressed and blame outside agencies or factors as the causal mechanisms. Anne believed that the school did not have enough provision for teachers who might have been suffering from stress. (Beck & Cowan, 2006).

#### **Assertions regarding Anne**

For individuals like Anne whose dominant values memes were of purple and red, it is possible that stress might occur when the safety of the group is threatened. Individuals resist power being exercised over them and if felt thwarted can produce negative emotions such as anger and feelings of helplessness. Anne pursued more self-autonomy than any other teacher at the school and was also shown to be capable and able to use competitive elements to get ahead. Ego involvements in individuals like Anne who think in the red value system are shown to be high (Beck & Cowan,

2006). She indicated defensiveness when challenged and could not seem to step back and appraise matters objectively; many issues that affected her at the school were often taken personally leading to a greater propensity for stress. Anne, much like Mark, often-blamed external factors as possible causes of her stress, during conversations she was often heard to say, “It was not my fault”, “I would be somebody if” “They are out to get me” (*Interview with Anne, 17/04/2007 p.49*). Trusting others was perceived as being risky by Anne because red knows its own unpredictability and protects its own motives from others. She had indicated during conversations that she had difficulty in focusing on others rather than herself. Other traits exhibited by Anne were from the orange worldview in which her perceptions of self worth came from outside evaluations and she was found to be able to easily condemn weaknesses in others. Anne often felt loneliness due to constant competition with others at the school (*Interview with Anne, Tuesday 17/04/2007 p.49*).

## **4.9 Case Study: Portrait of Elizabeth**

### *Vignette*

Elizabeth had been teaching mathematics for many years. She taught part time at the case school and also was also employed as a member of the schools management team. In total Elizabeth had been employed for 11 years at St Catherine’s. The researcher first met Elizabeth over two years ago.

### **Classroom observations**

Elizabeth was observed in the teaching of students in the subject area of information technology, which was one of her areas of expertise. The researcher initially, made a request to observe other teaching subject areas, however Elizabeth declined the request. According to Elizabeth the teaching environment where she taught information technology was thought to be one of the best in the school regarding resources (*observation and conversation with Elizabeth, Thursday 18/10/2007*).

The environment where she taught consisted of a room that had recently been refurbished with a new carpet and new improved air conditioners. Benches that contained computers were situated around three quarters of the room’s wall space.

All of the personal computers were linked to a single laser printer; incidentally an adjoining class also had access to this particular printer. This would infuriate Elizabeth on many observed occasions (*observation and conversation with Elizabeth, Thursday 18/10/2007*).

*“We really need to get around to purchasing another printer for the other IT classroom. At the moment both classes have to share the printer, which can cause problems. Such problems have involved students from the other class sending work to the printer that has not been checked first. By, checked I mean proof read. The result is wasted ink and paper that is very expensive to replace. The other annoyance with the present set up, is that students are constantly wandering into my class to retrieve their work. Not only is this a distraction for my students but also it is providing those wandering students with an opportunity to waste valuable teaching and learning time.”* (*Lesson observation with Elizabeth, 18/10/2007*).

The class that Elizabeth was observed to teach was a year nine class who were being taught how to type on personal computers. Elizabeth would always meet the students outside of the teaching room at the commencement of each lesson. She insisted and expected that before the students were allowed into the room they should be in an orderly fashion. The procedure for this involved each student to line up in a single row, outside of the classroom. They were also expected to refrain from speaking to each other. If satisfied, Elizabeth would request that they then enter. On entering the classroom, students would stand behind an allocated seat at a table. Lessons would invariably commence the same way. The lessons would begin with the students being requested to sit and the class register being read (*Lesson observation with Elizabeth, 18/10/2007*).

Elizabeth would use a whiteboard that was situated on a wall that faced the classroom, and write down specific lesson objectives. Each of the written objectives also included given timeframes for completion. The year nine students in the class that was observed were being taught how to type with regard to accuracy and speed. They worked and completed exercises individually and at their own pace. To help

them they read from a set textbook. The speed and accuracy typing lessons involved students learning how to correctly use a computer keyboard using touch only. Students were encouraged not to look down at the letters on the keyboard. Those students that were caught by Elizabeth looking down at their keyboards were issued with a plastic opaque keyboard cover. The cover completely hid the keyboard from view. If a student required assistance then they were requested to raise a hand and silently wait until she was available. Elizabeth rarely was observed to walk around the classroom and provide assistance (*Lesson observation with Elizabeth, 18/10/2007*).

The way that Elizabeth operated in the classroom indicated that she expressed traits that are found in individuals who think in the blue value meme way of thinking. In this level, the world is seen as an orderly place where there is meaning and purpose under the control of authority. This is why in this level respect for authority, and rules are valued. A life style based on “one true way” and “going by the book” in dealing with problems or issues in life is very characteristic of this values meme. In terms of education, traditional methods of teaching are seen to be the preferred method (Beck & Cowan, 2006).

In regard to discipline in a classroom environment, Elizabeth liked to be in complete control.

*“I firmly believe that children are able to complete most tasks on their own. That is if they are not continually interrupted and distracted from the task at hand. That is why I insist that there is complete silence in my classes, I do not tolerate any noise what so ever. If a child is not compliant then I would send them out.”*  
(*Lesson observation with Elizabeth, 09/08/2007*).

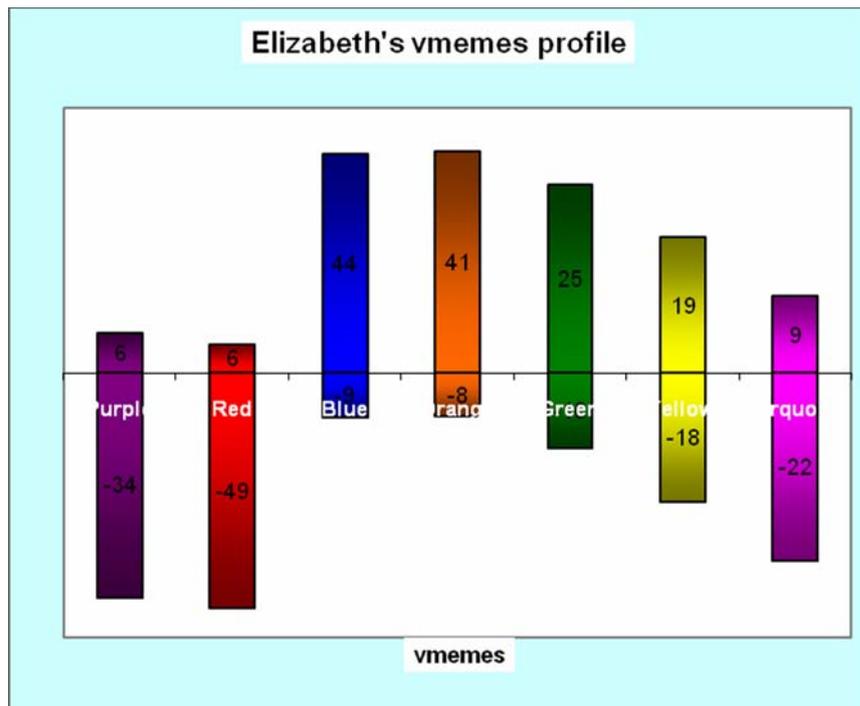
During most of the observed lessons Elizabeth was observed to sit at a desk in the classroom marking her senior classes work whilst her students worked in complete silence on their respective tasks.

Elizabeth was another teacher at the school who seemed to prefer the company of other members of staff who had similar views and beliefs as she did (*observation with Elizabeth, 24/04/2007*). She was observed on many occasions to sit with the same teachers in the preparation room, usually in deep conversation. These teachers were invariably teachers that had some form of extra responsibility in the school such as year or curriculum coordinators. She was also seen on many occasions to sit with and partake in deep conversation with the school principal. Green traits include those of feeling, the need to be with individuals that have similar beliefs and views as ones self (Beck & Cowan, 2006).

**Table 14 Elizabeth's values test results**

%	Yellow	Orange	Red	Purple	Blue	Green	Turquoise
99	59	74	41	29	61	50	33
90	51	63	39	28	60	49	32
80	40	51	27	19	45	37	23
70	36	46	23	16	40	33	19
60	33	41	19	13	35	29	16
50	29	37	15	10	31	25	13
40	28	35	13	9	28	23	12
30	24	31	9	6	24	20	8
20	21	26	5	3	19	15	5
10	16	21	0	0	12	10	1
Acceptance	<b>19</b>	<b>41</b>	<b>6</b>	<b>6</b>	<b>39</b>	<b>30</b>	<b>9</b>
Rejection	<b>18</b>	<b>8</b>	<b>49</b>	<b>34</b>	<b>9</b>	<b>10</b>	<b>22</b>
-10	5	1	19	15	1	5	14
-20	8	6	26	22	7	8	19
-30	10	9	32	27	11	10	24
-40	12	12	38	32	15	12	28
-50	13	14	40	34	17	13	30
-60	15	17	46	39	21	15	34
-70	18	20	51	44	26	18	39
-80	20	24	58	50	31	21	44
-90	27	33	75	65	43	29	55
-99	29	34	81	69	44	31	60

Figure 8 Elizabeth's value memes profile



Elizabeth's value meme profile (portrait)

According to the values test (see Table 14 and Figure 8) Elizabeth scored highly in both the blue (DQ, absolutist) and orange (ER, achievist) values memes (Beck & Cowan, 2000).

Blue was Elizabeth's dominant values level. The blue values meme is sacrifice-self orientated and it emerges in conditions of chaos created by conflicts, deprivation, and suffering with a desire to bring discipline, order through religion, culture, or nationalism. People who value the blue values meme tend to have a future time orientation; they believe that one needs to sacrifice now by obeying the rules and authority to get rewards later. In this level, the world is seen as an orderly place where there is meaning and purpose under the control of a powerful authority. This is why in this level respect for authority, loyalty, patriotism, and rules are valued. A life style based on "one true way" and "going by the book" in dealing with problems or issues in life is very characteristic of this values meme. Therefore, people are expected to accept the judgment of the authority (politicians, parents, and religious leaders) and play their roles to maintain a healthy society. Strict religious communities, highly structured societies, or highly bureaucratic organizations are places where this values meme is common. The value meme has certain belief

characteristics: all life is seen as being predetermined by an all-powerful and all-knowing God; individuals sacrifice self for the cause or truth; a code of conduct is based on absolute principles; character is built on laws, discipline, morality; and social order is rigid (Beck & Cowan, 2000).

The orange value meme (ER, achievist) is expressed self-orientated and in this level the world is seen as a place full of opportunities and resources. Capitalist values, technological advancement, economic power, and competition are valued within this level. In this level, priority is given to self-advancement rather than the community, bureaucracy and heavily structured systems are not valued. People who value this value meme have an entrepreneur perspective in life and for them manoeuvring within the rules of an organization or a system to get ahead and testing available options in life to reach a goal are common attitudes. The value meme has certain belief characteristics: that independence and autonomy should be sought; the truth should be sought on an individual basis thoughts should be reflective on and questioning of an individual's values and beliefs; objective methods should be used to obtain and communicate knowledge, achievement, advancement and change should be sought out; and materialistic gain should be sought (Beck & Cowan, 2000).

Elizabeth also scored relatively higher than the general population in the green values meme level, therefore it seemed prudent to consider this particular value meme. 'Green' thinking people show and have concern for human feelings, needs, and relationships. Relationships are given priority in this level and the world is seen as a habitat where peace and prosperity must be maintained. Human rights, equality and well being for all are respected in the values meme. Individuals who think in this green level feel that they must be successful in interpersonal relationships; they need to feel and be accepted within the group community. They need to feel that relationships with others are authentic, congruent, honest, and that trust exists for self and others. When this sense of belonging or trust is not perceived to exist for them, then the individual will tend to feel an increase in emotional stress. Individuals can be either extroverted or introverted. However, in either case they will tend to be very judgmental in their way of thinking, sometimes to such an extent that they often endeavour to convert others to their way of thinking. Communication in this value

meme also becomes highly valued. In respect to educating and training these green individuals are very much involved in exploring each other's feelings. Group activities are sought and encouraged, as is experiential learning. The value meme has certain belief characteristics: the earth's resources should be equally shared amongst all mankind; humans should be free from divisiveness and greed; rationality should be superseded by subjectivity; reality should be seen as social construction, harmony amongst peoples should be sought; relationships and communication are paramount, authoritarian ways should be negated and egalitarian ways should be sought, empathy of other's should be sought; and knowledge must be seen as truth in context (Beck & Cowan, 2000).

### **Elizabeth's value meme profile (non-trait)**

Elizabeth strongly rejected the yellow worldview because individuals who think in this values meme often feel the need to withdraw from groups and become individualistic (Beck & Cowan, 2000). However, Elizabeth did not feel the need to do so; she was observed to actively seek out some individual teachers much like John for company.

Elizabeth also rejected the red worldview (CP, Egocentric) values meme individuals in this value system are reluctant to listen to others points of view. They do not value the experiences of others either, unless it has a positive repercussion for them in terms of further control or in gaining power. Self is seen as primary at the expense of others (Beck & Cowan, 2000).

Elizabeth's overall acceptance scores for sacrificial thinking (the combined scores of turquoise, blue, green and purple) were slightly higher than her self-expressive scores (these are the combination scores of yellow, red and orange). Although these results are very similar in comparison with the other teachers' scores, significantly Elizabeth scored higher than all participating teachers in both the blue (DQ, absolutist), and orange (ER, achievist) values memes.

## **Responses to open-ended questions**

### **Elizabeth's beliefs and values regarding education**

Elizabeth responded in an interview that she saw the purpose of education as being the means for helping students to make sense of the world and for facilitating students in reaching their true and full potential. She also saw education as providing the opportunities for students to become employable, provide them with life skills and generally a way of improving their lives (*Interview with Elizabeth, Tuesday 24/04/2007*).

*“I think that the purpose of education is in the holistic development of a child. By holistic I mean socially, spiritually and physically. I also believe that at the conclusion of secondary schooling a child should be a balanced, skilled young adult prepared to undertake the next stage of life, whether that is in further education or in the workforce.” (Interview with Elizabeth, 24/04/2007 p. 61).*

The statement above is compliant with the yellow value meme of thinking; in this particular worldview way of thinking priority is placed on the acquisition of new holistic knowledge (Beck & Cowan, 2006). This statement did not correlate with the results that were obtained from the values test questionnaire in which Elizabeth strongly rejected the yellow way of thinking. Elizabeth also believed that learning should be directed and controlled by the teacher and that learning should involve the correct performance of a task. She also indicated that an aspect of teaching was for teachers to provide a supportive environment for their students.

*“I think that the role of teachers in teaching and learning should be to facilitate and adapt the teaching environment where necessary to meet the learning needs of their students, all that contributes positively to students' learning, which falls within the teacher's role description, and is legal, moral, ethical and considered appropriate by the school, community and governing authorities.”(Interview with Elizabeth, 24/04/2007 p. 61).*

The statement above is indicative of the blue way of thinking in the respect that it makes reference to issues concerned with ethics, legality and morality and that authorities that are presumably knowledgeable in these areas should prescribe such issues (Beck & Cowan, 2006).

When asked how she believed students learned best, Elizabeth responded by saying that she thought students learnt best in an atmosphere of respect, self-control and fair treatment of others (*Interview with Elizabeth, Tuesday 24/04/2007*). These beliefs were also indicative of an acceptance for the blue way of thinking. The statements expressed by Elizabeth that best summarise this assertion are provided below for the reader.

*“I think that students learn best in an environment of respect and fair treatment. They also learn best when they are intrigued about the outcome of a particular activity, or thought process, or narrative specific to the key learning areas in the curriculum, and are supported, through a combination of direct instruction and enquiry to satisfy this curiosity. Students also learn best I believe, through being active in absorbing and contributing to their learning experience.” (Interview with Elizabeth, 24/04/2007 p. 65).*

*“The activities that are most useful for student are those activities that make learning experiences or knowledge more accessible to students or more motivating. Also those that also develop respect for individuals especially amongst teachers and students” (Interview with Elizabeth, 24/04/2007 p. 62).*

*“Also activities that prepare students to exercise self-control and for them to maintain a productive learning environment for all.” (Interview with Elizabeth, 24/04/2007 p. 67).*

The above statements all exhibit traits and ways of thinking that are seen in the blue value meme way of thinking that sees individuals learning their best in an

environment that has a systems that is strict, respectful, moral and exercises self control (Beck & Cowan, 2006).

When Elizabeth was asked what she most enjoyed in her respective roles as both schoolteacher and school deputy principal she responded by saying that she enjoyed seeing her students succeed and she also enjoyed supporting her teaching staff.

*“In teaching I very much enjoy seeing students pleased with achieving a new understanding. In the administrative context I enjoy supporting staff so that they can produce their best for students. Seeing things run smoothly so that there is the best type of environment for learning to take place. In providing unique opportunities for students who cannot always fit into the school pattern of things.” (Interview with Elizabeth, 24/04/2007 p. 67).*

In respect to beliefs regarding student discipline Elizabeth firmly believed that teachers should be the main authorities of controlling students in respect to their behaviour management.”(Interview with Elizabeth, Tuesday 24/04/2007). The statement above and below are both indicative of the blue way of thinking. That sees that character is built on laws, discipline and morality. Individuals sacrifice self to controlling authority; individuals work best when they are told how and what to do (Beck & Cowan, 2006).

*“Although teachers should help to foster self control in students, I firmly believe that teachers should be the disciplinarian.” (Interview with Elizabeth, 24/04/2007 p. 61).*

A further acceptance of the blue way of thinking can be seen in the quotation below. Elizabeth firmly believed that all teachers should work together by strictly adhering to the policies of the school. She disliked those teachers that deviated from school protocol.”(Interview with Elizabeth, Tuesday 24/04/2007).

*“The measures work well when all levels are participating. It does not work well when on an individual level a person passes their*

*responsibility to another without providing the necessary step in the process. If all staff maintain standards and enforce consequences discipline measures will work best. When they are not then the school is very unproductive. I distinctly dislike the [maverick] types of teachers. Such teachers really can disrupt the status quo of schools and can be a real headache for us in administration.”(Interview with Elizabeth, 24/04/2007 p. 67).*

Elizabeth’s pedagogical beliefs and values regarding education were therefore, clearly oriented towards the blue way of thinking, in which the blue values meme is sacrifice-self orientated. In this level, the world is seen as an orderly place where there is meaning and purpose under the control of authority. This is why in this level respect for authority, loyalty, and rules are valued. A life style based on “one true way” and “going by the book” in dealing with problems or issues in life is very characteristic of this values meme. Therefore, people are expected to accept the judgment of the authority and play their roles to maintain a healthy society. The value meme has certain belief characteristics in that: individuals sacrifice self for the cause of conduct is based on absolute principles, character is built on laws, discipline, morality and social order is rigid (Beck & Cowan, 2006). This assertion was supported in the values profile test.

### **Elizabeth’s values and beliefs regarding change and conflict**

In respect to perceived changes, Elizabeth believed that her teaching role in general had not changed significantly in her experience. It had, she said remained similar, especially in the teaching of senior subjects. However, she believed that the rate of changes that were being implemented from outside agencies had steadily increased. These changes she believed concerned administrative roles. Elizabeth believed that the roles of administration were changing in an increasingly intensifying way, with continuing emphasis being placed on compliance and auditing. Such changes she thought were the most frustrating aspect for her to accept because they were different to the past. She also expressed concern for the lack of provision of time and suitable resources to implement them (*Interview with Elizabeth, Tuesday 24/04/2007*). In the blue way of thinking, change must be seen to be consistent, sanctioned, and orderly and should honour the past (Beck & Cowan, 2006).

*“As a rapid change in society has occurred, this has also been mirrored in schools. Much emphasis is being placed on accountability, transparency and compliancy.” (Interview with Elizabeth, 24/04/2007 p. 72).*

Elizabeth was asked to articulate whether she considered that she had adequate resources to facilitate her teaching role. She responded by saying that the school provided ample resources for teachers to carry out their roles (*Interview with Elizabeth, Tuesday 24/04/2007*).

*“I have adequate resources for my roles. But, then my teaching and administrative roles do not require a lot of physical resources. Anyway the best resources I have found are the teachers and students that are hardworking and enthusiastic.” (Interview with Elizabeth, 24/04/2007 p. 67).*

Elizabeth was asked if she was happy in her present job and whether she believed that she was sometimes overworked. She responded by indicating that she was happy and that she did sometimes feel overworked. However, although she admitted that she believed that she was being overworked, she reconciled the overworking, as being an inevitable part of her job. (*Interview with Elizabeth, Tuesday 24/04/2007*).

*“Yes, I am happy in my job. No I have not thought about leaving the profession.”(Interview with Elizabeth, 24/04/2007 p. 72).*

*“Yes, on many occasions I have felt overloaded with work commitments at school. After all it is the nature of the job any way.”(Interview with Elizabeth, 24/04/2007 p. 67).*

For Elizabeth, lack of time was perceived to provide the greatest challenge for her especially time away from her students, as she believed that her role as deputy principal took up too much time (*Interview with Elizabeth, Tuesday 24/04/2007*).

*“I think that the greatest challenge for me is that I do not seem to have enough time to do everything well, such as a lack of time to stop and listen to more than basic data exchange. I would like to have more time to converse with my students. To meet the challenge I endeavour to be as time efficient as possible.” (Interview with Elizabeth, 24/04/2007 p. 67).*

She also expressed concern that her employing school had at times conflicts of interest in their approaches to educational issues” (*Interview with Elizabeth, Tuesday 24/04/2007*).

*“There seems to be a large degree of mismatch between my approaches to education and the schools. As I have some authority to make changes this is an advantage. However, when proposed change doesn’t sit well with staff, principal or the Catholic Education Office then we are expected and obligated to work in a spirit of co-operation. After all we cannot have everything that we want our own way” (Interview with Elizabeth, 24/04/2007 p. 67).*

When pressed for a more detailed response into articulating what she actually meant by her perception of a conflict of interest with her employing school Elizabeth elaborated by saying that she believed that the school did not have a very positive working environment. She believed that there were too many teachers that were employed at the school that were either waiting for retirement or were perceived by her as being too negative. Such teachers she believed were not working to the best of their abilities and as such the students and the school were both suffering as a consequence (*Interview with Elizabeth, Tuesday 24/04/2007*).

*“I believe and value positive working environments, where everyone does their best, and are encouraging and happy in their roles. These are great schools to work in. Schools where people are only there to retire to get their superannuation or get another job and those who whinge constantly are very depressing places and best avoided as they make even the most committed teachers dislike*

*their jobs and lower the tone of the school. I have taught in schools like that and it wasn't the most pleasant experience. If I could have my way I would get rid of these negative teachers and replace them with teachers that want to be part of this school community and are positive in their jobs. I really don't like whinging people.”* (Interview with Elizabeth, 24/04/2007 p. 67).

The statement above exhibits the following thinking traits of individuals who think in the blue value meme, where employees owe organisations their loyalty as it is the organisation that provides the employee's well being. Individuals should sacrifice themselves to their organisations as the organisation is more important than self (Beck & Cowan, 2006).

Elizabeth was asked how she dealt with possible conflicts with her teaching staff.

*“I raise all matters of concern regarding staff with the staff or the school principal or with the Catholic Education Office. I share my concerns and have found on most occasions that a solution results. Where a concern only involves me I try to resolve it myself, if no one else sees my concern as being significant I will let the concern pass by. However, I would monitor the problem in case it required being raised again, in order that I could provide more evidence to explain the concern if the need required.”* (Interview with Elizabeth, 24/04/2007 p. 71).

When asked how she managed personal autonomy with school conformity, she said that she always had difficulty complying with her employing authority [the Catholic Education Office] introducing educational initiatives to which she was opposed. However, Elizabeth indicated that such conflicts of interest should ideally be managed in consultation (Interview with Elizabeth, Tuesday 24/04/2007).

*“Yes, I have had instances when I have felt powerless. Such as those concerned with educational ideas dictated to us by the CEO.”* (Interview with Elizabeth, 24/04/2007 p. 67).

*“We can always exercise personal autonomy within our own area of control. But, always in consultation with those who will be affected by what we say or do. Otherwise we should graciously accept the requirements of our employer or employing authority. After all we have all agreed to in our employment contract and we are being paid to do so.”(Interview with Elizabeth, 24/04/2007 p. 67).*

The statement above is compliant with the blue way of thinking. Elizabeth expressed the notion that all the school teaching staff should graciously accept the requirements of their employing authority: because they had each signed a contract with them, and they received their pay from them (*Interview with Elizabeth, Tuesday 24/04/2007*). Employees owe organisations their loyalty as it is the organisation that provides the employee’s well being. Individuals should sacrifice themselves to their organisations as the organisation is more important than self (Beck & Cowan, 2006).

According to Elizabeth, conflict should be avoided if at all possible. However, she also said that she believed that if an issue was perceived to be serious enough then conflict might be unavoidable.

*“Conflict is best avoided by a little extra thought about how best to handle a difficult situation. I have found that mutual understanding without hurt can be achieved. However, where issues are very important addressing them should not be avoided even if some measure of conflict might occur.”(Interview with Elizabeth, 24/04/2007 p. 67).*

When asked what she believed should be changed at her school Elizabeth responded by saying that it could be anything as long as it benefited the school.

*“It could be anything. I would like to help to change things that staff, parents or students feel would benefit the school.”(Interview with Elizabeth, 24/04/2007 p. 67).*

### **Elizabeth's values and beliefs regarding Professional development**

When asked if she thought that the school provided for adequate professional development for the teaching staff, Elizabeth responded by saying that she thought that what was provided was generally adequate for staffing requirements (*Interview with Elizabeth, Tuesday 24/04/2007*).

*“All staff are notified of professional development courses with the Queensland Studies Authority and Catholic Education Office. The school pays for the attendance fees. All staff that request industrial placement or contact with other schools in regards to their teaching areas have and are provided for. I have personally driven up staff members to in service meetings.”*(*Interview with Elizabeth, 24/04/2007 p. 67*).

When asked if she believed that the provisions for professional development were adequate for the school and administrative staff, she responded by saying that she believed that the provisions needed to be extended to include all subject areas of the school as only the core subject areas had sufficient provision. Elizabeth also believed that further provision should be made for the administrative staff also (*Interview with Elizabeth, Tuesday 24/04/2007*).

*“I think that the provisions are the best that have been made available to a rural school such as ours. We do need to develop a professional development process to extend the current provisions though. Also, I don't believe that there is adequate provision for the administrative staff. Especially if you consider the recent changes that have taken place in such areas as school accountability.”* (*Interview with Elizabeth, 24/04/2007 p. 67*).

*“I would like to see provision for all subject areas each year. Currently only the core subject areas have adequate provision.”*(*Interview with Elizabeth, 24/04/2007 p. 67*).

### **Elizabeth's values and beliefs regarding recruitment issues**

Elizabeth was asked additional questions relating to her beliefs regarding the recruitment of teaching and auxiliary staff as principals and deputy principals play an important role in determining the selection of such staff members. Significantly, some recent research had indicated that school principals were more likely to favour and select those teachers with similar attributes to their own (Baker & Cooper, 2005).

Elizabeth was asked to explain how the school advertised and selected potential candidates for teaching positions. Much like other schools St Catherine's High School advertised positions through the use of the Internet. Interested candidates then contacted the school and provided a current resume and a covering letter that addressed the criteria for the position. The school deemed that by this stage the candidate had officially applied for the position. Therefore, supplied referees were contacted. After this initial process if the candidate seemed suitable he or she would invariably be invited to attend an interview. The interview process involved a face-to-face meeting with the respective candidate, and the school principal. For an administrative position a panel that consisted of the deputy principal, school principal, a parent, church representative and a member of the school governing body would interview the candidate (*Interview with Elizabeth, Tuesday 24/04/2007*).

*“We advertise. Interested teachers can ring the school and request information regarding the advertised position. That information can be emailed faxed or posted out to interested parties. If the potential candidate is still interested they are requested to complete an application form and also to send in a current copy of their CV. Once we have received this information we would consider that they have formally and officially applied for the position. Therefore, referees would be telephoned. Interviews would take place and any subsequent offers made. Also online use of the Internet is used. We use the teacher's employment web site to advertise positions. If an administrative position were on offer the same procedures would apply. However, the Catholic Education Office would carry this out. The school carries out recruiting for teaching staff. For an administrative position a panel made up from members of the CEO,*

*school, parents, church and local community interviews administrative staff. The school principal only interviews teaching staff. Interviews generally are conducted appropriately depending on the position.”(Interview with Elizabeth, 24/04/2007 p. 67).*

Elizabeth believed that the current system that was employed by the school in teacher recruitment was more than adequate and did not think that the process needed changing. However, she did express some concern that the process was not perfect and mistakes had been made in the past, especially with some individual teachers who had been unable to embrace the Catholic ethos of the school (*Interview with Elizabeth, Tuesday 24/04/2007*). The statement above provided a clear indication that Elizabeth favoured teachers who had a similar belief in the blue way of thinking. The blue value meme way of thinking is seen in individuals that have a belief system that embraces the belief that all life is predetermined, by an almighty all-powerful and all knowing God and where observations of religious, appeals should be undertaken (Beck & Cowan, 2006). This assertion was supported in previous research literature, where recent research had indicated that school principals were more likely to favour and select those teachers with similar attributes to their own (Baker & Cooper, 2005). The following interview extract also supports the assumption that Elizabeth expressed traits often associated with the blue way of thinking.

*“The system works well. However, the process is and cannot be said to be perfect. It always is to some degree dependent on the quality of respondents. It is not always possible to be completely sure of the nature of a candidate at the time of interview. We have in the past employed individuals that have been found to be not that suitable. Especially with those that have not been able to embrace the Catholic ethos of the school.”(Interview with Elizabeth, 24/04/2007 p. 68).*

*“No change at present seems evident with the recruitment process.”(Interview with Elizabeth, 24/04/2007 p. 67).*

### **Perceived role of school administration**

According to Elizabeth, the school administration had a discreet role and that role was to provide suitable leadership for the school and provide suitable support for students. Every one had a unique role and a place in which they fit. Administration was there to provide direction such as in regulations and rules for the school community to follow (*Interview with Elizabeth, Tuesday 24/04/2007*).

*“Look it’s pretty simple to explain really. The school administration is there to lead the school, to provide suitable direction and to support the students.” (Interview with Elizabeth, 24/04/2007 p. 71).*

Employees work best, when they are told how and what to do. Individuals are seen simply as cogs in a large system, in which they fulfil roles that they have been given. These are traits seen in the blue value meme way of thinking (Beck & Cowan, 2006).

### **Management of crisis and conflict**

When asked how she managed stress, Elizabeth responded by saying that in times of stress, she would try to relax and if required would seek assistance. She would often speak over concerns with her husband after school (*Interview with Elizabeth, Tuesday 24/04/2007*).

*“I cope with stress by trying to relax and I would take a break. If I have had a really stressful episode I would talk thing over with my partner. He is often good at getting me to put issues into perspective.” (Interview with Elizabeth, 24/04/2007 p. 74).*

Elizabeth felt that she had at times been overwhelmed with issues. Such issues involved meetings with teaching staff (*Interview with Elizabeth, Tuesday 24/04/2007*).

*“Yes, I have felt overwhelmed by an issue.” (Interview with Elizabeth, 24/04/2007 p. 74).*

*“Most certainly I have been stressed like when I would have voiced my opinion to keep teachers from saying the wrong thing.” (Interview with Elizabeth, 24/04/2007 p. 74).*

*“Yes, I have sometimes. But, sometimes I have been wrong. Sometimes there are more important things to worry about. Sometimes it will happen down the track. Sometimes I have to say no because it is not matching the big picture of the school or the attempt went badly and it is not worth trying again at that particular time. Such concerns have included those with teachers, students, the curriculum and resources. No one gets everything that they want so sometimes letting things go is often the best course of action to take.”(Interview with Elizabeth, 24/04/2007 p. 74).*

Elizabeth often internalised possible perceived threats, problems or issues that were stressful, and endeavoured to put them in perspective by reminding herself of what was in fact important (*Interview with Elizabeth, Tuesday 24/04/2007*). These are traits often found in the orange value meme way of thinking, where perceived conflicts and threats are dealt with in a rational manner, where thoughts are reflective on questioning an individual’s values and beliefs (Beck & Cowan, 2006). The same traits also can be seen in the statements below.

*“Decide whether the issue was important enough to take further. Consider if my feeling of being "threatened" is pride or something coming from me. Decide if I could deal with it by myself, or whether I required assistance. If assistance were required I would seek it out. If I considered a situation as being dangerous then I would remove myself from the danger zone. If the perceived threat came from a misunderstanding, or a perception from the aggressor that they were unaware of their actions I would seek an explanation. Maybe more information would clarify the situation or support from others would alleviate the problem making the situation less painful.” (Interview with Elizabeth, 24/04/2007 p. 67).*

Asked whether she thought that the school provided for adequate support for individuals who might have been suffering from stress Elizabeth responded positively. She believed that the school did provide adequate resources for teachers in the form of a free counselling service. Elizabeth also believed that teachers were able to speak with the school principal if required (*Interview with Elizabeth, Tuesday 24/04/2007*).

*“The schools employer provides a counselling service free to members of staff and it is external to the organization and the principal upon request can refer teachers. This is a free and professional service then it seems to be adequate.” (Interview with Elizabeth, 24/04/2007 p. 67).*

*“If a teacher did not want to speak to the school principal then they could seek assistance from their year co-ordinator. After all we are all willing to provide assistance if we can.” (Interview with Elizabeth, 24/04/2007 p .67).*

However, she did admit that this process could not adequately address concerns, if the concerns were with the school administration (*Interview with Elizabeth, Tuesday 24/04/2007*).

*“Difficult if a staff member has a problem with administration though.” (Interview with Elizabeth, 24/04/2007 p. 67).*

When asked about those teachers who wished to seek counselling anonymously, Elizabeth could not provide a response (*Interview with Elizabeth, Tuesday 24/04/2007*).

### **Assertions regarding Elizabeth**

For individuals like Elizabeth whose dominant values memes were of blue and orange, an often-negative consequence associated with the blue and orange ways of thinking involves making very judgemental appraisals of others, especially those who are perceived by them to be at odds from the accepted norm (Beck & Cowan,

2006). For example, Elizabeth believed that there were too many teachers who were employed at her school who were either waiting for retirement or were perceived by her as being too negative. Such teachers she believed were not working to the best of their abilities and as such the students and the school were both suffering as a consequence. Ego involvements in individuals like Elizabeth who think in the orange value system are shown to be high. She had indicated during conversations that she had difficulty in focusing on others rather than herself.

Other traits exhibited by Elizabeth were from the orange worldview in which her perceptions of self worth came from outside evaluations and she was found to be able to easily condemn weaknesses in others (Beck & Cowan, 2006). For Elizabeth, everything had a purpose, a plan, and a reason. Elizabeth thought students learnt best in an atmosphere of respect, self-control and fair treatment of others. Individuals such as Elizabeth resist power being exercised over them and if felt thwarted can produce negative emotions such as anger and feelings of helplessness, which can lead to the occurrence of stress. Elizabeth pursued more self-autonomy than most other teachers at the school and was also shown to be capable and able to use competitive elements to get ahead.

In respect to collegiality, Elizabeth was another teacher at the school who seemed to prefer the company of other members of staff who had similar views and beliefs as she did. She was observed on many occasions to sit with the same teachers' in the preparation room, usually in deep conversation. When asked how she managed stress, Elizabeth responded by saying that in times of stress, she would try to relax and if required would seek assistance. She would often speak over concerns with her husband after school. Asked whether she thought that the school provided for adequate support for individuals who might have been suffering from stress Elizabeth responded positively.

## 4.10 Case Study: Portrait of Michael

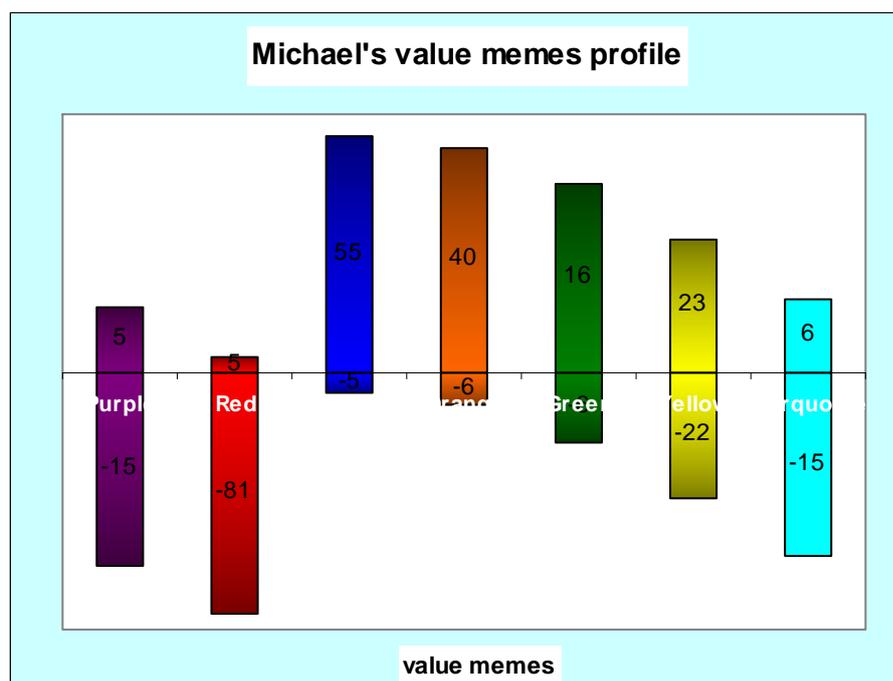
### Vignette

Michael a mature-age teacher had been a member of the school administrative staff for three years. Michael was the only research participant who did not teach at St. Catherine's High. The researcher first met Michael over two years ago.

**Table 15** Michael's values test results

%	Yellow	Orange	Red	Purple	Blue	Green	Turquoise
99	59	74	41	29	61	50	33
90	51	63	39	28	60	49	32
80	40	51	27	19	45	37	23
70	36	46	23	16	40	33	19
60	33	41	19	13	35	29	16
50	29	37	15	10	31	25	13
40	28	35	13	9	28	23	12
30	24	31	9	6	24	20	8
20	21	26	5	3	19	15	5
10	16	21	0	0	12	10	1
Acceptance	23	40	5	5	55	16	6
Rejection	22	6	81	15	5	6	15
-10	5	1	19	15	1	5	14
-20	8	6	26	22	7	8	19
-30	10	9	32	27	11	10	24
-40	12	12	38	32	15	12	28
-50	13	14	40	34	17	13	30
-60	15	17	46	39	21	15	34
-70	18	20	51	44	26	18	39
-80	20	24	58	50	31	21	44
-90	27	33	75	65	43	29	55
-99	29	34	81	69	44	31	60

**Figure 9** Michael's value memes profile



### **Michael's value meme profile (portrait)**

According to the values test (see Table 15 and Figure 9) Michael scored highly in both the blue (DQ, absolutist), and orange (ER, achievist) values memes (Beck & Cowan, 2000).

Blue was Michael's dominant values level. The blue values meme is sacrifice-self orientated and it emerges in conditions of chaos created by conflicts, deprivation, and suffering with a desire to bring discipline, order through religion, culture, or nationalism. People who value the blue values meme tend to have a future time orientation; they believe that one needs to sacrifice now, by obeying the rules and authority, to get rewards later. In this level, the world is seen as an orderly place where there is meaning and purpose under the control of a powerful authority. This is why in this level respect for authority, loyalty, patriotism, and rules are valued. A life style based on "one true way" and "going by the book" in dealing with problems or issues in life is very characteristic of this values meme. Therefore, people are expected to accept the judgment of the authority (politicians, parents, and religious leaders) and play their roles to maintain a healthy society. Strict religious communities, highly structured societies, or highly bureaucratic organizations are places where this values meme is common. The value meme has certain belief characteristics in that: all life is seen as being predetermined by an all-powerful and all-knowing God; individuals sacrifice self for the cause of truth; a code of conduct is based on absolute principles; character is built on laws, discipline, morality and social order is rigid (Beck & Cowan, 2000).

The orange value meme (ER, achievist) is express self-orientated and in this level the world is seen as a place full of opportunities and resources. Capitalist values, technological advancement, economic power, and competition are valued within this level. In this level, priority is given to self-advancement rather than the community; bureaucracy and heavily structured systems are not valued. People who value this value meme have an entrepreneur perspective in life and for them manoeuvring within the rules of an organization or a system to get ahead and testing available options in life to reach a goal are common attitudes. The value meme has certain belief characteristics: independence and autonomy should be sought; truth should be sought on an individual basis; thoughts should be reflective on and question an

individual's values and beliefs; objective methods should be used to obtain and communicate knowledge; achievement, advancement and change should be sought out; and materialistic gain should be sought (Beck & Cowan, 2000).

### **Michael's value meme profile (non-trait)**

Michael strongly rejected the red worldview (CP, Egocentric) values meme those individuals in this value system are reluctant to listen to others' points of view. They do not value the experiences of others either, unless it has a positive repercussion for them in terms of further control or in gaining power. The world is seen to be like a jungle where the strong dominate and the weak serve, therefore power is desired. People who value this value meme tend to assert for dominance. Red values meme has a present time orientation. What matters now is important and the future is not real. The value meme has certain belief characteristics: the world is seen like a jungle that is full of predators; others should be dominated especially aggressive people; seeks immediate gratification; expects respect and attention; must defend reputation to avoid shame; should please self free from domination from others; and the world is seen as those who have and those who have not. Self is seen as primary at the expense of others. Michael also rejected the yellow worldview, individuals who think in this values meme often feel the need to withdraw from groups and become individualistic. However, Michael did not feel the need to do so, he was observed to actively seek out other school administrative staff for conversations and company (Beck & Cowan, 2000) .

Michael's overall acceptance scores for sacrificial thinking (the combined scores of turquoise, blue, green and purple) were slightly higher than his self-expressive scores (these are the combination scores of yellow, red and orange). Although these results were very similar in comparison with the other teachers' scores, significantly Michael scored higher than all participating teachers in both the blue (DQ, absolutist), and orange (ER, achievist) values memes. These results were very similar to Elizabeth's scores.

## **Responses to open-ended questions**

### **Michael's beliefs and values regarding education**

Michael responded when being interviewed that he believed that the purpose of education was to provide a mutual benefit between individuals and society (*Interview with Michael, 03/09/2007*).

*“Education is aimed at the proper formation of each human being, for the good of society and for the benefit of each person as an individual, in terms of what we mean to be a human person. The outcome of education is concerned or should be concerned with producing well rounded, good, and loving human beings. What is needed is to fully develop each individual, so that they can become good loving people.” (Interview with Michael, Friday 03/09/2007 p. 82).*

The statement above is compliant with the yellow way of thinking: where in this particular worldview priority is placed on the acquisition of holistic knowledge (Beck & Cowan, 2006).

When asked what he believed to be the role of teachers in the context of teaching and learning Michael responded by indicating that he thought that teachers should be like instructors and impart new knowledge to their students. He also believed that this process of instruction should be managed through discipline, which is conversant with the blue way of thinking. In the blue way of thinking priority is placed on the acquisition of knowledge through learning, through instruction, and through discipline (Beck & Cowan, 2006).

*“Teaching or more specifically the purpose of teaching is as a tool for educating others. I also believe that my teachers should be able to maintain, guide and manage their students through discipline. The actual role of teachers is as instructors and facilitators, in that they should impart new knowledge to others, specifically to their students.” (Interview with Michael, 03/09/2007 p. 82).*

With respect to Michael's belief regarding what activities were the most useful or beneficial for student learning he responded by saying that he believed it depended on the individual student. He acknowledged that all students learnt differently and learnt best when motivated to do so (*Interview with Michael, Friday 03/09/2007*).

*"It depends on the individual student. Each person is unique and therefore learns as an individual. Some learn best through observation and reflection, whilst others learn best by the act of doing such as with hands on exercises. I think that students learn best when they are motivated and interested."* (*Interview with Michael, 03/09/2007 p. 82*).

Michael did not believe that students should be passive learners. He believed that they should be able to question what they were being taught, and make informed decisions based on rationalising (*Interview with Michael, Friday 03/09/2007*).

*"Of course a student's role in education should fundamentally be concerned with that of learning. However, they should question teachers and formulate new knowledge and skills to prepare them for life after school so that they can be successful. I don't believe that they should be passive learners in this process."* (*Interview with Michael, 03/09/2007 p. 83*).

The statements above are compliant with the orange way of thinking: where in this particular worldview priority is placed on the acquisition of new knowledge in order to succeed in the world. The orange value meme has certain belief characteristics: that independence and autonomy should be sought; the truth should be sought on an individual basis; thoughts should be reflective on and questioning of an individual's values and beliefs; and objective methods should be used to obtain and communicate knowledge (Beck & Cowan, 2006).

Another acceptance of the orange way of thinking was evident in his espoused beliefs in the quotation below. Michael believed that he was very privileged in being able to work with children. He placed high priority on students achieving high

academic grades. In the orange way of thinking, achievement, advancement and change should be sought out and materialistic gain should be sought (Beck & Cowan, 2006).

*“When I have had the privilege to teach in the past I have most enjoyed the interaction with students it has been a real privilege. I have enjoyed seeing students succeed by reaching their true potential for growth in their academic aspirations. I most certainly enjoy seeing students gain excellent marks at the end of year 12 studies. The success of such students helps to advertise that this school is very successful in preparing its students for places in university. To be honest it also helps us to recruit additional families into our school. After all the school is a business.” (Interview with Michael, 03/09/2007 p. 83).*

In respect to student management and discipline, Michael believed that teachers should maintain such issues. He believed that teachers were sometimes a causal factor in perpetuating some student misbehaviour in their classrooms (*Interview with Michael, Friday 03/09/200*).

*“Discipline should be concerned with maintaining, guiding and managing students in order to facilitate a safe learning environment for all. Teachers should hold authority in their respective classrooms. They should be in charge, if not chaos would ensue. I believe that the classroom teachers should make the decisions in his or her classroom. Most problems that have occurred with teachers in managing their students have been usually as a result of the teacher not setting down firm guidelines. It’s simple really; students need to be taught what is acceptable and what is unacceptable in regards to their behaviour. They need to know right from wrong. Misbehaviour should be dealt with immediately.” (Interview with Michael, 03/09/2007 p. 83).*

The quotation above complies with the blue way of thinking. Blue on the surface appears to value consensus. However, in reality blue values a chain of command based on legitimate authority. A directive, authoritative leader leads the team or student class and the blue leader assumes that their way is the best.

The way of thinking in blue is characterised by bipolar thinking, such as bad or good, or black or white. The person with the authority or power is expected to make decisions. The use of immediate punishment is often sought to aid control (Beck & Cowan, 2006).

### **Michael's values and beliefs regarding change and conflict**

In respect to perceived changes, Michael believed that the rate of changes that were being implemented from outside agencies had steadily increased. These changes he believed concerned administrative roles. Michael believed that the roles of administration were changing in an increasingly intensifying way, with continuing emphasis being placed on compliance and accountability. Such changes he thought were the most frustrating aspect for him to accept. He believed that such changes had occurred as a result of an increase in the bureaucratic scrutiny of education from outside sources, such as from parents and the Queensland Board of Studies. Michael also believed that the advent of new technologies has also had a detrimental effect (*Interview with Michael, Wednesday 15/09/200*).

*“Today it is so much easier to communicate with others, in almost an instance. You therefore have to respond just as quickly to these communications. I seem to find myself almost continually attached to my computer answering emails.” Interview with Michael, 15/09/2007 p. 83).*

*“Yes, I have noticed changes in my teaching and administrative roles over time. I have found that I now am involved in administration 100% of the time these days, which is a shame because I would still like to carry on teaching. There seems to have been an increase in outside involvement at all levels. These levels have taken the form of more involvement from the Catholic*

*Education Office. They require more accountability for any and all decisions made these days. With that also comes the forms and associated paperwork that need filling out. Parents are also to blame for changes in schools. There is a perception I think from parents that all students are able to succeed whilst at school. So they expect results. ” (Interview with Michael, 15/09/2007 p. 85).*

Although Michael believed that he had enough resources to carry out his role as school principal he believed that his teachers were lacking some essential resources due to financial constraints. This concern can be seen in the following statement.

*“Personally for my role as school Principal I would have to say that I have. So yes I consider that I have adequate resources. However, if I could I would like to make more resources available for my teachers. I do know that they are lacking some essential things. However, I am a realist and know that money is limited.” (Interview with Michael, 15/09/2007 p. 85).*

For Michael, he believed that working with and conversing with adults was his greatest challenge. He freely admitted that this was due in part to the fact that he believed that he was too shy and introverted (*Interview with Michael, Wednesday 15/09/200*).

*“The greatest challenge is with adults. I have problems or difficulties when I have to challenge some parents or teachers. It is so much more difficult to converse with some adults these days. I have to admit that some of the cause is often due to my personality as I have always been a rather shy and quiet person. Also I just do not like conflict or possible conflict with others.” (Interview with Michael, 03/09/2007 p. 83).*

When asked how he dealt with this concern, Michael responded by saying that he had great difficulty. On encountering possible conflict with teachers, Michael believed that his position helped him to assert dominance over them (*Interview with Michael, Friday 03/09/200*).

*“Look, I tell them all the time that I am the boss. They can disagree with me, but in the end I make the decisions. If they are not happy then that really is their concern. I have to stick by my decisions. I have difficulty with parents though. I have to be very careful and avoid conflict if possible. After all if they are not happy with how things are done here they could simply move their students to another school. It is simple mathematics’, less students equal less funding. So I have to be careful to get my own way.” (Interview with Michael, 03/09/2007 p. 83).*

The quotation above is compliant with the red and orange ways of thinking where in the red way of thinking ego involvement is very high. There is often instant defensiveness when ideas are challenged. In the orange way of thinking orange knows its own unpredictability and projects its own motives onto others. Though they can provide the appearance of caring, such people have difficulty focusing on someone else as opposed to the self (Beck & Cowan, 2006).

#### **Michael’s values and beliefs regarding Professional development**

When asked if he thought that the school provided for adequate professional development for the teaching staff Michael responded by saying that he thought that what was provided was generally adequate for his staffing requirements. He believed that it was the responsibility of individual teachers to plan for their own professional development programmes (*Interview with Michael, Friday 03/09/2007*).

*“Current provisions for professional development are provided by the Catholic Education Office, the Queensland State Authority and the Queensland Education Department. There is of course provision for individuals to facilitate their own further professional development. However, I would like to see each teacher plan for their own professional development.” (Interview with Michael, 03/09/2007 p. 83).*

*“Yes, I think that these provisions are adequate.” (Interview with Michael, 03/09/2007 p. 83).*

### **Michael's values and beliefs regarding recruitment issues**

Michael was asked additional questions relating to his beliefs regarding the recruitment of teaching and auxiliary staff as principals play an important role in determining the selection of such staff members. Significantly, some recent research had indicated that school principals were more likely to favour and select those teachers with similar attributes to their own (Baker & Cooper, 2005).

Michael was asked to explain how the school advertised and selected potential candidates for teaching positions (*Interview with Michael, Wednesday 15/09/200*).

*“I recruit new staff and school administrative staff through advertising in the local paper and on the Internet. Interested candidates are required to contact the school and provide a current resume and a covering letter that addresses the criteria for the actual position that is advertised. Supplied referees are contacted after initial short listing. Successful candidates are then invited to attend an interview. The interview process involves a face-to-face meeting with the candidate, and myself. For an administrative position a panel that consists of: the deputy principal, myself, a parent, church representative, and a member of the school governing body interview the candidate.” (Interview with Michael, 15/09/2007 p. 84).*

*“Yes, I am very happy with the current provisions for recruitment of staff at my school. The system is not perfect though. We have had a few teachers that have not been really suitable in the past. They had difficulty in embracing the spiritual ethos of the school.” (Interview with Michael, 03/09/2007 p. 83).*

Michael believed, much like Elizabeth that the current system that was employed by the school in teacher recruitment was more than adequate and did not think that the process needed changing. However, he did express some concern that the process was not perfect and mistakes have been made in the past, especially with some individual teachers who had been unable to embrace the Catholic ethos of the school.

The statement above provides a clear indication that Michael, much like Elizabeth, favoured teachers who had a similar belief in the blue way of thinking. The blue value meme way of thinking is seen in use by individuals that have a belief system that embraces the belief that all life is predetermined, by an almighty all-powerful and all-knowing God and where observances of religious appeals should be undertaken (Beck & Cowan, 2006). This assertion was supported in previous research literature, where recent research had indicated that school principals were more likely to favour and select those teachers with similar attributes and beliefs similar to their own (Baker & Cooper, 2005).

### **Perceived role of school administration**

According to Michael, he and the school administration staff had a discreet role, and that role was to provide suitable leadership for the school and provide suitable support for both teachers and students (*Interview with Michael, Wednesday 15/09/2007*).

*“Firstly I am the boss, I manage the school. The role of administration is to provide additional support in helping me to manage the school. It is also necessary for admin to provide adequate resources for students and teachers alike for the purpose of obtaining the best possible educational environment. I think that my school has a good environment.” (Interview with Michael, 15/09/2007 p. 85).*

The above statement complies with the blue way of thinking in which in this level organisations are seen to be under the control of a hierarchy, where everyone has a discreet role to play with a strong leader at the helm (Beck & Cowan, 2006).

### **Management of crisis and conflict**

When asked how he managed stress Michael responded by saying that in times of stress, he would try to relax by either walking or playing golf, and if required would seek assistance. He would often speak over concerns with his wife after school. In very stressful times Michael would use prayer (*Interview with Michael, Wednesday 15/09/2007*).

*“I cope with stress in various ways. I often talk with my wife if I feel under stress. I sometimes write about any concerns. I have often prayed about issues or worries. Sometimes I will go for a walk or play golf when I get the chance.” (Interview with Michael, 15/09/2007 p. 84).*

Michael often internalised possible perceived threats, problems or issues that were stressful, and endeavoured to put them in perspective by reminding himself of what was in fact important (*Interview with Michael, Wednesday 15/09/2007*).

*“My philosophy helps, in that I think that it must be done for the good of each person. Sometimes people need to know negative things about them like in matters of teacher accountability with disciplining students, where students may have become upset by a teacher.” (Interview with Michael, 15/09/2007 p. 85).*

*“Managing stress is a matter of finding compromise or a balance.” (Interview with Michael, 15/09/2007 p. 85).*

Michael felt that he had at times been overwhelmed with issues. Such issues involved meetings with teaching staff and parents. He also experienced stress due to accountability issues (*Interview with Michael, Wednesday 15/09/2007*).

*“Yes, especially regarding the amount of paperwork and accountability to the Catholic Education Office.” (Interview with Michael, 15/09/2007 p. 85).*

*“Yes, as I have mentioned earlier. I sometimes have difficulty working with other adults.” (Interview with Michael, 15/09/2007 p. 85).*

Asked whether he thought that the school provided for adequate support for individuals who might have been suffering from stress, Michael responded positively. Although he believed that the school did provide adequate resources for

teachers in the form of a free counselling service, Michael wanted to implement a programme to educate staff in the management of stress (*Interview with Michael, Wednesday 15/09/2007*).

*“The school has a counsellor; consultants from the Catholic Education Office are and can be provided. There are also I believe consultants that can be used from the teachers’ union.” (Interview with Michael, 15/09/2007 p. 85).*

*“I would like to see the easing of the causes of stress as a factor. I would also like to see the implementation of educating staff members on the management of stress. Yes, this is another change that I would like to see take place” “I would like to see the easing of the causes of stress as a factor. I would also like to see the implementation of educating staff members about the management of stress. Yes, this is another change that I would like to see take place.” (Interview with Michael, 15/09/2007 p. 85).*

Finally, Michael indicated that he was very happy in his position as principal of St Catherine’s High, as he believed that it provide him with a purpose for his existence (*Interview with Michael, Wednesday 15/09/2007*).

*“Yes, I am happy in my job. In fact it has consumed most of my life by providing purpose to my existence. I have never felt that I should leave teaching in the past or in the present.” (Interview with Michael, 15/09/2007 p. 85).*

The above statements fit well with the blue way of thinking in which we see individuals believing that they have been born to fulfil a predetermined role in which they sacrifice self for the common good (Beck & Cowan, 2006).

### **Assertions regarding Michael**

Blue was Michael's dominant values level. The blue values meme is sacrifice-self orientated and it emerges in conditions of chaos created by conflicts, deprivation, and suffering with a desire to bring discipline and order through religion, culture, or nationalism. People who value the blue values meme tend to have a future time orientation; they believe that one needs to sacrifice now by obeying the rules and authority to get rewards later. In this level, the world is seen as an orderly place where there is meaning and purpose under the control of a powerful authority. This is why in this level respect for authority, loyalty, patriotism, and rules are valued. A life style based on "one true way" and "going by the book" in dealing with problems or issues in life is very characteristic of this values meme. Therefore, people are expected to accept the judgment of the authority (politicians, parents, and religious leaders) and play their roles to maintain a healthy society. Strict religious communities, highly structured societies, or highly bureaucratic organizations are places where this values meme is common. The orange value meme (ER, achievist) is express self-orientated and in this level the world is seen as a place full of opportunities and resources. Capitalist values, technological advancement, economic power, and competition are valued within this level. Ego involvements in individuals like Michael who think in the orange value system are shown to be high. People who value this value meme have an entrepreneur perspective in life and for them manoeuvring within the rules of an organization or a system to get ahead and testing available options in life to reach a goal are common attitudes (Beck & Cowan, 2006).

Much like Elizabeth, Michael's dominant values memes were of blue and orange. An often-negative consequence associated with the blue and orange ways of thinking involves such individuals making very judgemental appraisals of others, especially those that are perceived by them to be at odds from the accepted norm (Beck & Cowan, 2006). He had indicated during conversations that he had difficulty in focusing on others rather than himself. Other traits exhibited by Michael were from the orange worldview in which his perceptions of self worth came from outside evaluations and he was found to be able to easily condemn weaknesses in others. For Michael everything had a purpose, a plan, and a reason. Michael thought students learnt best in an atmosphere of respect, self-control and fair treatment of others. Individuals such as Michael resist power being exercised over them and if felt

thwarted can produce negative emotions such as anger and feelings of helplessness, which can lead to the occurrence of stress. Michael pursued more self-autonomy than most other teachers at the school and was also shown to be capable and able to use competitive elements to get ahead.

In respect to collegiality, Michael was another teacher at the school who seemed to prefer the company of other members of staff who had similar views and beliefs as he did however, he found this difficult to achieve. These are traits associated with the blue way of thinking (Beck & Cowan, 2006). He was observed on many occasions to stand outside of conversations that were held between teachers, he was also observed to spend considerable time in his office working on his own. When asked how he managed stress, Michael responded by saying that in times of stress, he would try to relax, sometimes pray and if required would seek support from his wife. Asked whether he thought that the school provided for adequate support for individuals who might have been suffering from stress Michael responded positively.

#### **4.11 Summary of Results**

A summary of the results of each of the case studies is provided in Appendix I. The purpose of the summaries is to highlight factors that were relevant to the overall findings of the study. The summaries are also provided because the cases for each research participant were initially presented separately in chapter four and it may have been difficult for the reader to distinguish the similarities and differences and their possible significance. Appendix I provides the reader with a summary of how each case study addresses the research questions. Table 16 provides a comparison of participant value memes (worldviews for the convenience of comparing the research participants.

**Table 16 Comparison of participants**

Comparisons		
<b>(Worldviews) value memes</b>		
<b>The dominant value memes (worldviews) are represented in uppercase letters</b>		
Participant	Portrait accepted Worldviews (value memes)	Non-trait rejected Worldviews (Value memes)
Samantha	<b>GREEN,</b> <b>Humanistic</b> Turquoise and Purple	Yellow, Red, Blue and Orange
John	<b>TURQUOISE,</b> <b>Holistic</b> Yellow, Purple and Green	Red, Blue and Orange
Mark	<b>TURQUOISE,</b> <b>Holistic</b> Purple and Yellow	Red and Orange
Anne	<b>PURPLE,</b> <b>Animistic</b> Red and Orange	Yellow, Blue and Green
Elizabeth	<b>BLUE,</b> <b>Absolutistic</b> Orange and Green	Yellow, Red and Purple
Michael	<b>BLUE,</b> <b>Absolutistic</b> and Orange	Yellow, and Red

Table 24 provides a comparison of participant worldviews (value memes) for the convenience of comparing and ranking the research participants.

## 4.12 Main findings

The main findings are presented in the following sections (4.15-4.16) for ease of reading, as it may have been difficult for the reader to extrapolate and correlate the findings of this study with the research questions.

## 4.13 Findings for the Primary Research Question

1. *Primary research question: To what extent are teachers' philosophical views regarding education congruent with their schools administrators at the case school?*

Mark indicated that in general he was happy in his job. However, he also responded by saying that he would be happier if the senior management would listen to his concerns in respect to discipline issues. Which he said would make him feel happier

in his teaching position. For Mark, he believed that unmotivated students were the most frustrating aspect of teaching and the management of student behaviour. Mark firmly believed that the focus of responsibility should be placed on individual students to change their own behaviour.

For Samantha, change was seen as the most frustrating aspect of teaching. Especially those changes that are imposed on teachers by school management and change that had no perceived rationale. She also expressed concern for the lack of time given for teachers to effect change. Samantha's main reasoning for not being happy in her present position was concerned with issues regarding self-efficacy and conflict with senior management in that they did not allow her to work the way she wanted to. Another area of conflict for Samantha, like John, was with her perception of the role of the school administrative staff. She believed that they did not adequately consult and allocate adequate resources and personnel. As a consequence, Samantha felt that she was losing capability in bringing about desired outcomes of student engagement and learning, especially with those students who she perceived to be difficult and unmotivated. Individuals such as Samantha resist power being exercised over them and if felt thwarted can produce negative emotions such as anger and feelings of helplessness, which can lead to the occurrence of stress. She expressed concern, that her present employing school allowed students to run the school. Teachers, she said were undervalued by students and by the senior management.

John believed that too much time and effort was spent on ensuring the wellbeing of students as opposed to the wellbeing of the teachers of the school, especially in the supporting of teachers with regard to student management concerns. Another area of conflict for John was with his perception of the role of the school administrative staff. He believed that they did not adequately consult and allocate adequate resources and personnel. John also believed that the school administration were to blame for a poor delivery of the curriculum which he considered to be inadequate. For John, his greatest frustration in teaching was concerned with students who had no interest in learning. He believed that he should have been provided with more autonomy to deal with such students. When John was asked whether he was happy in his job he responded by saying that he was at times. However, due to perceived frustrations in and outside of the classroom John had seriously considered leaving the

school on many occasions. However, survival for his family was an important consideration for John in not leaving the teaching profession. He also asserted that whenever the thought crossed his mind he also thought about losing contact with students. Much of his frustration was with the perception that the management at his school took away much of his autonomy. He believed that as a professional teacher he should be able to exert more control of his students.

Anne, much like Samantha, also expressed concern with change that was imposed on teachers from the schools administrative staff that had been sanctioned without prior consultation with the teaching staff. Anne was asked if she was happy in her present position. She responded by saying that she was not and had decided that she would consider a different career altogether, such as a career in speech therapy where she believed she would have more control in her work. This is a typical trait often found in individuals who think in the red value meme. During interview, she readily expressed concern in that she felt that her school's administrative staff did not cater to the needs of teachers, such as in the management of student behaviour and dealing with students with special needs which were perceived as being the most challenging and frustrating aspects of teaching. She strongly believed that her employing school did not adequately support her in this endeavour. Anne, much like Elizabeth and Samantha, resisted power being exercised over her. During interview, she stated that if she felt thwarted it produced negative emotions in her, such as anger and feelings of helplessness. These types of emotion can lead to the occurrence of stress. Anne also expressed concern during her interviews that dealing with special needs students was her greatest challenge. The challenge involved the restructuring of work programmes to cater to such students needs. Although she was occasionally provided with a teacher aide to help with the writing of these types of programmes, she did not think that the provision was adequate. In general, she felt that she was not coping well at all. Anne was also concerned with one particular special needs student because she felt threatened by his physical size. Her specific concern was with regard to possible incidences of a violent nature from the student. Anne was not happy with her school principal who she believed suddenly decided that the school community should accept these types of students into the school, especially when no one in the school had been trained to deal with such individuals. Anne believed that there should have been a process of consultation used in the first instance. When asked

how she dealt with these perceived challenges, Anne responded by saying that she used routine, structure and a lot of her 'personal' time.

In respect to the school administrators, for the administrator Elizabeth, lack of time was perceived to provide the greatest challenge for her especially time away from her students, as she believed that her role as deputy principal took up too much time. In respect to change, Elizabeth believed that the rate of changes that were being implemented from outside agencies had steadily increased. These changes she believed concerned administrative roles. Elizabeth believed that the roles of administration were changing in an increasingly intensifying way, with continuing emphasis being placed on compliance and auditing. Such changes she thought were the most frustrating aspect for her to expect. She also expressed concern for the lack of provision of time and suitable resources to implement them. She responded by indicating that she was happy and that she did sometimes feel overworked. However, although she admitted that she believed that she was being overworked, she reconciled the overworking, as being an inevitable part of her job. When asked how she managed personal autonomy with school conformity, she said that she always had difficulty complying with her employing authority introducing educational initiatives to which she was opposed. When asked if she believed that the provisions for professional development were adequate for the school and administrative staff, she responded by saying that she believed that the provisions needed to be extended to include all subject areas of the school as only the core subject areas had sufficient provision. Individuals such as Elizabeth resist power being exercised over them and if felt thwarted can produce negative emotions such as anger and feelings of helplessness, which can lead to the occurrence of stress. Elizabeth pursued more self-autonomy than most other teachers at the school and was also shown to be capable and able to use competitive elements to get ahead.

The administrator Michael believed that that the rate of changes that were being implemented from outside agencies had steadily increased. These changes he believed concerned administrative roles. Michael believed that the roles of administration were changing in an increasingly intensifying way, with continuing emphasis being placed on compliance and accountability. Such changes he thought were the most frustrating aspect for him to expect. For Michael, he believed that

working with and conversing with adults was his greatest challenge. He freely admitted that this was due in part to the fact that he believed that he was too shy and introverted. Michael liked to do things his way whenever possible. He liked to be on his own when at work and seemed to keep a distance from other teachers at his employing school. Individuals such as Michael resist power being exercised over them and if felt thwarted can produce negative emotions such as anger and feelings of helplessness, which can lead to the occurrence of stress. He openly admitted that he disliked confrontation with teachers who had opposing views to his own. He believed that as the ‘boss’ he had the say on how his school was operated.

The analysis and interpretation of the findings from both the quantitative and qualitative data of the research study suggest that the teachers’ views are not at all congruent with the school administrators. In fact, the values and beliefs of the administrators, according to this study are at variance with, and are often in dissonance with that of the teachers. This is clearly seen in Table 17 which provides a comparison of some of the espoused values and beliefs of school administrators and teachers that indicates that the values and beliefs of the administrators, according to this study are at variance with, and are often in [conflict] with that of the teachers.

**Table 17 Comparison of some of the espoused values and beliefs of school administrators and teachers at St Catherine’s High**

<b>Comparison of some values and beliefs of school administrators and teachers.</b>	
Administrators’ values and beliefs (Predominantly blue and orange levels of thinking)	Teachers’ values and beliefs (Predominantly green, purple and turquoise levels of thinking)
Seeks control	Seeks autonomy
Competition	Collegiality
Managerialism	Professionalism

Considerable differences can be seen in the value and belief categories. For example, where the teachers espouse valuing professionalism, the school administrators espouse the category of managerialism, the administrators value in this category clearly belongs to that of the orange level of thinking as portrayed by Beck and Cowan, 2006. This particular level is orientated towards personal success, wealth, material possessions, and competitiveness. Conversely, the teachers’ values and belief systems way of thinking are in opposing levels on the hierarchical levels of

thinking such as seen in the green and turquoise levels. The green and turquoise levels way of thinking are orientated towards seeking comfort in groups, valuing community, seeking diversity and is directly opposed to affluence. This assertion supports previous research conducted by Beck and Cowan (2006) who purported that current leadership and political power in the nations of the western world, for example Australia, were currently in the latter stages of the orange level way of thinking, and that education systems currently reflect the values of their governing systems. Teachers were seen therefore to be at present caught between these opposing belief systems, which could be a causal factor contributing to stress. It is of importance to note that this clash of values and belief systems may not only affect teachers' working conditions but also could cause an imbalance of recognition for teachers in school contexts.

Much of the tension that has been shown to exist at St Catherine's has also been shown to be between the teachers and their 'management' by the school administrative staff, especially in regard to how decisions have been made about such issues as student discipline. Decisions are and have been initiated using a top-down decision making approach from the leadership at the school. Whereas teachers on the receiving end of these decisions would like to see the right to actively participate in the decision-making process, which affect them directly.

#### **4.14 Findings for the Subsidiary Research Questions**

*Regarding the teachers and the administrators:*

*Research question 2: What are the world views of the participating teachers and administrators?'*

In response to this research question profiles of each research participant were elicited using a values and belief questionnaire test profiler based on the developmental levels suggested by Clare Graves (1981) and Beck and Cowan (1996). The values test instrument was not used to determine what an individual research participant thought but how s/he thought. The resultant individual profile was not used to determine a particular type of personality. It provided a 'snap shot'

of a moving picture of the participant in a particular circumstance at a given point in time. The instrument in essence was used to track dominant value memes (or value systems or worldviews) that were operating in each individual. To complete the assessment, each research participant had to select from a series of statement clusters those that best resembled “most like myself” and “least like myself”. The instrument was designed as a forced choice format with individuals having to either accept or reject the statements. The resultant profile indicated the participants’ dominant value meme on eight scales. For example, if an individual rejected a particular value meme and let us presuppose that it was the blue value meme, due in part because they wanted to either reject or not be associated with that particular worldview they would select non-trait statements that were “less like myself” designed to elicit that value meme. Conversely, if they wanted to accept or be associated with the blue worldview then they would select portrait statements that would indicate “more like myself”. Where there was no reaction then participants would skip over the statements.

The study suggests that both the teachers’ and administrators’ beliefs from a worldview perspective form a coherent and interdependent set of value and belief systems which can be orientated to the contexts of teaching and learning. It became apparent that the teachers’ and school administrators’ beliefs about self, education, teaching and learning, assessment, change and conflict, stress management and propensity for burnout played a significant and central role, however, recognisably different in all participants. The findings from the study also suggest that worldviews or value memes of teachers affect all aspects of their lives. Teachers who share similar worldviews have similar beliefs regarding educational issues. However, teaching is influenced by experience and context.

**Table 18 Comparison of participants' Worldviews**

<b>(Worldviews) value memes</b>		
<b>The dominant value memes (worldviews) are represented in uppercase letters</b>		
<b>Participant</b>	<b>Portrait accepted Worldviews (value memes)</b>	<b>Non-trait rejected Worldviews (Value memes)</b>
<b>Samantha</b>	<b>GREEN, Humanistic</b> Turquoise and Purple	<b>YELLOW, Red, Blue and Orange</b>
<b>John</b>	<b>TURQUOISE, Holistic</b> Yellow, Purple and Green	<b>RED, Blue and Orange</b>
<b>Mark</b>	<b>TURQUOISE, Holistic</b> Purple and Yellow	<b>RED and Orange</b>
<b>Anne</b>	<b>PURPLE, Animistic</b> Red and Orange	<b>YELLOW, Blue and Green</b>
<b>Elizabeth</b>	<b>BLUE, Absolutistic</b> Orange and Green	<b>YELLOW, Red and Purple</b>
<b>Michael</b>	<b>BLUE, Absolutistic and Orange</b>	<b>YELLOW, and Red</b>

Table 18 presents a comparison of participants' worldviews. Turquoise (HU, holistic) was Marks and John's dominant values level. 'Turquoise' people value all life as a whole; individuals who think in this level tend to be conceptual, value learning and search for meaning and purpose in their life. People who value this belief system also have a holistic perspective of problems. Persons thinking in this value meme exist in relationship to collective order, not just the self. In turquoise, one learns not only in observation and participation but also through the actual experience of simply being. Marriage and family relations are valued highly and people in this system may as a consequence be committed to home and extended family relations this was evident in the fact that both John and Mark had always lived and worked in the same township.

Green (FS, relativistic) was Samantha's dominant worldview, however she also expressed a preference for the turquoise worldview. Green and turquoise values memes are both self-sacrifice orientated, they are concerned with the theme of community. 'Green' thinking people show and have concern for human feelings, needs, and with relationships. Relationships are given priority in this level and the world is seen as a habitat where peace and prosperity must be maintained. Human rights, equality and well being for all are respected in the values meme. Individuals

that think in this green level feel that they must be successful in interpersonal relationships, they need to feel and be accepted within the group community. They need to feel that relationships with others are authentic, congruent, and honest and that trust exists for self and others. When this sense of belonging or trust is not perceived to exist for them, then the individual will tend to feel an increase in emotional stress. Individuals can be either extroverted or introverted. A negative aspect of green is that an individual may be susceptible to groupthink, in that the pressures to be supportive of collective decisions and actions may be extreme.

Purple (BO, animistic) was Anne's dominant values level. In the purple values meme level the world is seen as a mystical and sometimes threatening place. 'Purple' people find safety and solace within communities in which they live, where others look out for each other. Marriage and family relations are valued highly and people in this system may as a consequence be committed to home and extended family relations. This was evident in the fact that Anne often visited her parents and siblings who lived only a short distance away from where Anne worked and lived. Anne also expressed a preference for the red (CU, egocentric) values meme that is an express self-orientated values meme and an egocentric attitude is valued at this level. The worldview has certain belief characteristics: the world is seen like a jungle that is full of predators; others should be dominated especially aggressive people; seeks immediate gratification; expects respect and attention, must defend reputation to avoid shame; should please self free from domination from others; and the world is seen as those that have and those that have not.

The worldviews of both school administrators were blue (DQ, absolutist) and the orange (ER, achievist) value memes. Blue was both Elizabeth's and Michael's dominant values level. The blue values meme is self-sacrifice orientated and it emerges in conditions of chaos created by conflicts, deprivation, and suffering with a desire to bring discipline, order through religion, culture, or nationalism. People who value the blue values meme tend to have a future time orientation; they believe that one needs to sacrifice now by obeying the rules and authority to get rewards later. In this level, the world is seen as an orderly place where there is meaning and purpose under the control of a powerful authority. This is why in this level respect for authority, loyalty, patriotism, and rules are valued. A life style based on "one true

way” and “going by the book” in dealing with problems or issues in life is very characteristic of this values meme. The orange value meme is express self-orientated and in this level the world is seen as a place full of opportunities and resources. Capitalist values, technological advancement, economic power, and competition are valued. In this level, priority is given to self-advancement rather than the community, bureaucracy and heavily structured systems are not valued. People who value this value meme have an entrepreneur perspective in life and for them manoeuvring within the rules of an organization or a system to get ahead and testing available options in life to reach a goal are common attitudes. Ego involvements in individuals like Michael who think in the orange value system are shown to be high. In this level, priority is given to self-advancement rather than the community, bureaucracy and heavily structured systems are not valued. People who value this value meme have an entrepreneur perspective in life and for them manoeuvring within the rules of an organization or a system to get ahead and testing available options in life to reach a goal are common attitudes (Beck & Cowan, 2006) .

***Research question 3:*** *How do teachers and administrators manage situations of crisis and conflict?*

All teachers and administrators in this study expressed strong feelings of conflict, frustration, stress, or discontentment in their respective teaching roles. However, the way in which they dealt with these problems was different for each teacher. Individual coping strategies fell into two distinct categories that involved either direct action from the individuals in order to eliminate the source of stress, or to lessen the feelings of such stress. The most frequent coping strategies that were employed by the participants involved: trying to put problems into perspective; avoiding confrontations; endeavouring to relax at school or at home; taking direct action to deal with problems; and discussing stressful episodes with others.

When asked how he managed stress, Michael responded by saying that in times of stress, he would try to relax by either walking or playing golf, and if required would seek assistance. He would often speak over concerns with his wife after school. In very stressful times, Michael would use prayer. Michael often internalised possible perceived threats, problems or issues that were stressful, and endeavoured to put

them in perspective by reminding himself of what was in fact important. In respect to collegiality, Michael was another teacher at the school who seemed to prefer the company of other members of staff who had similar views and beliefs as he did especially in times of possible conflict. However, he found this difficult to achieve. He was often observed to appear to keep to himself.

When asked how she managed stress, Elizabeth responded by saying that in times of stress, she would try to relax and if required would seek assistance. She would often speak over concerns with her husband after school. Asked whether she thought that the school provided for adequate support for individuals who might have been suffering from stress, Elizabeth responded positively. Elizabeth was another teacher at the school who seemed to prefer the company of other members of staff who had similar views and beliefs as she did. She was observed on many occasions to sit with the same teachers' in the preparation room, usually in deep conversation, which she said helped her to unwind. Other traits exhibited by Elizabeth were from the orange worldview in which her perceptions of self worth came from outside evaluations and she was found to be able to easily condemn weaknesses in others.

In times of stress, Samantha said she often meditated and sometimes listened to music. She felt that music helped her to feel better with her life. She also internalised problems and tried to put things into perspective by trying to remind herself what was important. However, she did say that this was difficult to achieve. If threatened by a situation that she felt that she could not control, Samantha would seek assistance. Samantha perceived external factors were causing her to experience problems in her teaching and for her to be experiencing stress; her attitude of blaming herself and not being sure how to bring change in her environment seemed to be where she seemed to be having most difficulty. Samantha was also found to be very susceptible to groupthink. This is another negative aspect of the green way of thinking for individuals that feel the need to fit in and feel accepted by others. This feeling of wanting acceptance, can and often overwhelm an individual especially in terms of being able and willing to agree or to disagree with an issue, so much so that such an individual will often agree to conflicting or dissonant views, which can be a causal factor often associated with stress. According to Beck and Cowan (2006), extremes of green can lead to burnout in education. More worryingly, they purport

that the pressure of caring for green thinking can overwhelm, and individuals could be at a greater risk of depression.

When John was asked how he managed stress, he responded by saying that he coped with stress by internalising such stress and trying to rationalise it. Sometimes he would discuss stressful episodes with others, such as with his wife or those teachers with whom he felt comfortable. John usually coped with stress by walking and getting away from the particular stressful situation or context. He also liked to listen to music to take his mind off stressful episodes. John also stated that if he felt threatened by a stressful situation he could not control, he would seek assistance.

Mark indicated that he coped with stress by withdrawing and becoming quiet. He believed that no one really cared or could help him anyway so he could not see the point of seeking assistance. He also internalised problems very much like Samantha and tried to rationalise things in an attempt to reduce such stress. Mark would also avoid any possible conflict with others. He often blamed external factors as possible causes of his stress.

Anne indicated that she coped with stress with difficulty. She internalised problems much like Samantha and Mark, and tried to rationalise possible issues in an attempt to reduce such stress. Anne would avoid conflict with others if at all possible. She believed that individuals could come to some sort of understanding on how to deal with an issue. When encountering a possible conflict, Anne would try to separate herself from the problem, she believed that talking with others often helped in reducing conflict. If faced with a perception of stress, Anne would seek help. She believed that most instances of stress that she had encountered had invariably been the result of someone else's actions. However, unlike Samantha, Anne was much more vocal in her account of her perceived conflicts, which she perceived she had with her employing school.

***Research question 4:*** *How are participating teachers and administrators beliefs about educational issues related to their worldviews?*

In regards to the administrators, Elizabeth's and Michael's beliefs and values regarding education were clearly orientated towards the blue way of thinking. The blue values meme is sacrifice-self orientated and the world is seen as an orderly place where there is meaning and purpose under the control of authority. This is why in this level respect for authority, loyalty, and rules are valued. A life style based on "one true way" and "going by the book" in dealing with problems or issues in life is very characteristic of this values meme. Therefore, people are expected to accept the judgment of the authority and play their roles to maintain a healthy society. The value meme has certain belief characteristics in that: individuals sacrifice self for the cause of conduct is based on absolute principles; character is built on laws; and discipline, morality and social order is rigid. This assertion was supported in the values profile tests for both participants.

Mark saw the purpose of education as being the process where individuals should be developed in all their facets. He believed in a holistic education that should provide society with well-educated individuals this statement fits well with the turquoise way of thinking. Although Mark saw change as inevitable in all aspects of life, which is a dimension expressed in the yellow and turquoise levels of thinking, he found it difficult to accept change readily. Mark's pedagogical beliefs and values regarding education were clearly orientated towards the turquoise way of thinking. From an educational perspective, Mark liked to actively pose problems in different ways to his students to get them to seek as many answers as they could. He acted more as a consultant during the lesson observations rather than an evaluator or judge.

Samantha saw a school as being a place of academic learning and not a place for socialising. However, she did make a point of saying that this judgment was based in the context of her own values and that the values of the school in general were not necessarily wrong. When asked what she believed to be the role of teachers in the context of teaching and learning, she replied by saying that teachers should facilitate learning amongst students. Teachers should also be able to inspire. This statement fits well with the green level of thinking. Samantha believed that students should be taught traditional practical skills. These concerns with practical and traditional skills are compliant with the purple value meme of thinking. In respect to educating and

training, these green individuals are very much involved in exploring each other's feelings. Group activities are sought and encouraged, as is experiential learning.

John saw the purpose of education as a means of helping people to discover what their innate abilities were and nurturing these abilities to fruition. He also saw education as a means of preparing young people for a meaningful role in society. John also expressed the notion that he thought education, and in particular schools, should have a role in socialising students into society. John thought that as a result of pressure from society teachers were expected to teach life skills to students that really should be the responsibility of parents. Much like Mark, John's pedagogical beliefs and values regarding education were clearly orientated towards the turquoise way of thinking.

Anne's pedagogical beliefs and values regarding education were clearly orientated towards both the turquoise and red ways of thinking. Anne responded when being interviewed that she saw the purpose of education as being the process where individuals are developed in subject specific facets. When asked what she believed to be the role of teachers in the context of teaching and learning, Anne responded by indicating that teachers should act as facilitators over the learning process in schools. However, she also expressed a belief that students had a role or should have a role in their learning. She liked hands-on activities and students following her lead. She believed in exciting her students and allowing them to be independent and strong individuals. This statement is compliant with the red worldview way of thinking in that allowances are made for self-direction, expression and independence in learning opportunities that challenge and test existing skill sets. Teachers are seen to be more like coaches rather than lecturers and as such expect their students to assume more responsibility for their own learning. Passive learning is not encouraged.

#### **4.15 Summary**

In this chapter, the researcher presented the analysis and interpretation of the findings from both the quantitative and qualitative data of the research study. A cohort of some 20 high schoolteachers and three school administrators: school principal, assistant principal and deputy principal made up the quota research sample. Attempts

were made to ensure representations of various elements of the teaching population from the case study school St Catherine's High. The elements consisted of teachers being chosen from gender and teaching experience. A purposive sample of four teacher cases and two administrative cases were selected for classroom observation, interviewing and profiling. The study consisted of three discreet phases. The first qualitative phase aspect of the research consisted of the gathering and analysis of data, which included written narrative accounts of observations, open-ended interviews of all chosen teacher and administrator case studies. The second qualitative phase of the study consisted of a values and belief questionnaire test profiler that was administered to espouse participants' beliefs and values systems from the worldview perspective of the spiral dynamics model. Finally, the main findings were presented in sections (4.15-4.16) that addressed the research objectives and research questions posed in chapter 1. Chapter 5 concludes the research study, where all the research questions are summarised and discussed.

# **CHAPTER 5**

## **DISCUSSION AND CONCLUSIONS**

### **5.0 Introduction**

This research study is a first step in understanding the interplay between teachers' prevailing worldviews and their work environment and in ascertaining whether there is also a relationship between teacher stress and prevailing teacher worldviews. The implications associated with this type of research are also significant, as the impact of perceived stress and burnout upon teacher retention and recruitment is seen to be substantial (Jarvis, 2002).

This final chapter concludes the research and restates the research focus of the thesis (section 5.2) the research objectives, main research question and subsidiary questions are restated (sections 5.3-5.4). The chapter also provides a summary of the research methods used and summarises the main quantitative and qualitative findings (section 5.6-5-8) before discussing the significant issues, and implications (sections 5.9-5.11) that emerged. Finally, limitations, recommendations and directions for further research (sections 5.12-5.14) are presented.

### **5.1 Overview**

Chapter 1 provided a review of background research literature on the problem of stress in the teaching profession and also provided the thesis of the study. The research objectives were stated and the significance of the study was also addressed. A review of literature that was related to theories of cognitive dissonance, teacher stress, the phenomenon of teacher burnout, teacher's value systems and beliefs, and the perspective of worldview were presented in chapter 2. Chapter 2 identified in particular the key concepts associated with teacher burnout and identified the limitations of previous research on the effects of reducing or mediating its impact on the teaching profession. This chapter also established the rationale for this particular study, and demonstrated the originality of the approach undertaken. Chapter 3 provided a review of literature related to theories of approaches to the research process; research paradigms were discussed, as were associated research

terminologies. The chapter also established the design and methodology for the study. Finally, the rationale for adopting a mixed method research approach was provided. Chapter 4 presented an analysis and interpretation of the findings from both the quantitative and qualitative data of the study.

There was considerable evidence in the research literature to support the assertion that teaching is a very stressful occupation. Many teachers have been shown to find the demands of being a professional educator in today's schools difficult and at times stressful. According to studies that were conducted by Borg (1990), approximately a third of all teachers will find their occupation extremely stressful. Travers and Cooper (1997) found that in comparison to other occupations, teachers experience much higher levels of stress. They found that 41% of teachers reported high to very high levels of occupational stress. This was compared with 31% in the nursing profession, 29% in managerial roles, and 27% in support and managerial management. When work stress that is associated with 'cognitive dissonance' results in the phenomenon known as teacher burnout, it can have serious consequences for the health and happiness of teachers, and also the students, professionals, and families with whom they interact on a daily basis. Cognitive dissonance has been defined as the perception of incompatibility between two cognitions, which can be defined as any element of knowledge, including attitude, emotion, belief, behaviour or value system (Harmon-Jones & Mills, 1999). Prolonged exposure to stress has been identified as a specific syndrome referred to as 'burnout' (Greenberg & Baron, 2000; O'Driscoll & Brough, 2003). The effects of burnout have been indicated to represent also a significant problem with the teaching profession. The relatively high rates of teacher attrition have been consistently identified as a major issue for the teaching profession over several decades as a result of stress and burnout. Attrition rates were reported in a study by Gold as being as high as 30% for beginning teachers within three years of commencing work (Gold, Roth et al., 1991; Gold, 1996). More recent research that was conducted by Goddard et al., (2006) suggested that many teachers actually burnout very quickly once they begin to practise teaching in schools. Respondents in the study were shown to be clearly and consistently reporting a declining view of their working environments. In addition, associated with the perceived declining work environments, there was shown to be an increasing proportion of respondents reporting that their efforts invested in their

teaching work were disproportionately greater than the rewards they believed that they should receive from being a teacher (Goddard, O'Brien et al., 2006).

However, research has shown that individuals do not all suffer from high levels of stress, some have been found to be more susceptible to stress than others, and only a few reach the burnout stage. Such studies have included differences across year levels of education and cross-cultural differences (Travers & Cooper, 1997; Male & May, 1998). Parkes (1994) suggested that understanding the individual differences amongst teachers may lead to understanding the variation in workplace stress and ultimately burnout. Parkes argued that teachers would all be exposed to similar intrinsic job factors, and that any associated environmental stressors would be expected to be relatively similar and constant, especially for those working in a comparable setting under similar conditions (Parkes, 1994). Historically and more recently in order to alleviate and find possible interventions regarding the aetiology of stress and burnout among the teaching profession many researchers have endeavoured to identify the main contributory factors (Dunham, 1977; Cichon & Koff, 1978; Farber, 1984; Gold, 1984).

The majority of previous research has focused upon environmental factors. These have included role conflict, ambiguity, and relationships with colleagues; attitudes and behaviours of pupils and an increase in accountability demands as a greater number of teachers leave the profession (Maslach, Jackson et al., 1996; Weisberg & Sagie, 1999; Kenyeri, 2002; Darling-Hammond, 2003; Inman & Marlow, 2004; National Education Association, 2005). The research literature clearly indicated that stress and ultimately burnout was shown to be associated with a multitude of factors. Such factors included; environmental factors, intrinsic job factors and individual factors. Historically a transactional model was used by Cox (1978) to explain this multifaceted dimension, where there was hypothesised to be considerable interplay between the individual and the environment. Cox stated that it was probable that although external factors trigger teachers' stress perceptions, individual factors play a major part in either moderating or mediating the perceived stress. Stress was usually a personal phenomenon, which suggested that stress responses might be affected by personality traits (Travers & Cooper, 1997).

Research has reported relatively few dimensions of personality traits with regards to a causal relationship with work related stress. The research that has examined personality traits in connection with stress and stress-related illnesses, have focused on Type A behaviour patterns. Personality traits such as impatience, hostility, irritability, competitiveness, and achievement strivings have been associated with Type A behaviour patterns (Burns & Bluen, 1992; Jex, Adams et al., 2002; Jepson & Forrest, 2006).

Therefore, the researcher proposed an alternative approach to alleviate and find possible interventions regarding the aetiology of stress and burnout among the teaching profession. This approach was to examine the core beliefs and value systems held by teachers, in order to understand their potential to change and respond to stressors in their environment.

## **5.2 Research Focus of Thesis**

The research focus of this study was to explore and investigate the use of Graves (1981) and Beck and Cowan's (2002) spiral dynamics model as a way to understand teacher beliefs, and value systems from a worldview perspective. The (spiral dynamics) model could best be thought of as a broad orientating paradigm, or a schema through which humans interpret the world. Beck and Cowan (2006) referred to these patterns of thinking as 'vmemes' (short for values attracting meta memes). These value memes fell into eight discreet levels with the potential for higher levels to emerge depending on life situations. The value meme was purported to lead to certain beliefs, motivational patterns and goals within an individual.

The model was chosen because it provided a holistic framework for understanding teachers' beliefs and value structures and it also envisaged their potential to change. It was also envisaged that the model might have been useful for the reconciling of teacher personal beliefs with the reality of teaching, thus reducing stress.

The study investigated the proposition that through identifying individual teachers who were more likely to suffer stress and potential stress in their work environments, schools could identify those teachers who required to be supported and in turn lead to

the development of teacher professional development programmes to facilitate those individuals to develop adequate coping strategies, which were adaptive to the inevitable demands and pressures of the teaching profession. Individual contributory factors could also be utilised to inform theory on position allocation and actual job selection procedures in schools.

Through the exploration of individual factors that could contribute to stress and potential burnout amongst teachers, the researcher hoped that a consequence of such research may have involved the facilitation of the fostering of a healthy working environment, which could be extremely conducive in encouraging a greater occupational commitment amongst school staff communities, with a reduction or mediation of the effects of perceived stress and lead to professional development strategies to prevent the development of stress in teachers, and enhance their retention in the teaching workforce. The research was guided by three specific objectives and related research questions.

### **5.3 The Research Objectives Therefore Were:**

- 1. To examine the individual experiences, challenges and rewards of teaching in a small rural school.*
- 2. To ascertain whether there was a relationship between teacher stress and prevailing teacher worldviews.*
- 3. To investigate the ways in which teachers' prevailing worldviews interact with their work environment, based on an understanding of teachers' beliefs and value systems from a worldview perspective.*

### **5.4 Research Questions**

***Research question 1:*** *To what extent are teachers' philosophical views regarding education congruent with their schools' administrators at the case school?*

As the design of the study progressed, the primary research question was supplemented by the formation of more specific subsidiary research questions.

***Regarding the teachers and the administrators:***

**Subsidiary research questions:**

Regarding the teachers and administrators:

- 2. What are the world views of the participating teachers and administrators?’*
- 3. How do teachers and administrators manage situations of crisis and conflict?*
- 4. How are participating teachers and administrators beliefs about educational issues related to their worldviews?*

## **5.5 Summary of Research Methods**

Due to the complex nature of the beliefs and the contexts involved in the study a mixed method case study that was grounded in an interpretive approach was employed. The study sought to align key aspects of the individual cases of the teachers and school administrators in a descriptive framework centred on their beliefs and practices. Data were obtained through two discreet phases that consisted of a series of interviews, observations, completion of surveys, conversations and written responses, which were used to compile individual case studies for each of the participators. These narratives were written to ascertain the perspectives and practices of each participating individual, but with a comparative framework in mind.

The qualitative data also included observations, during phase 2, of the social dimensions of collegiality, values profile tests and open-ended interviews made of the four case study teachers: Samantha, John, Anne, Mark, and the two school administrators Elizabeth and Michael. The description of the observed lessons took place during the beginning of 2006 and the first and second semester of 2007, as did the open-ended interviews. The researcher recorded events as they occurred and at the end of each observed lesson, a brief informal interview with each participant teacher took place to clarify aspects of the observations and the same procedure occurred after the open-ended interviews. The values profile tests also took place during the same time frames.

In concluding this research study, all research questions are answered and discussed. A summary of the major findings and discussion as responses to each research question is presented in the following section.

## **5.6 Summary of Findings in Respect to the Research Questions**

In addressing the research questions 1-4 case study observations; value profile tests, social dimensions of the school and open ended interviews of the school principal Michael; deputy school principal Elizabeth and classroom teachers; Samantha, John, Mark, and Anne were carried out.

- 1. Primary research question: to what extent are teachers philosophical views regarding education congruent with their schools administrators at the case school?*

Although there were similarities between the teachers and school administrators, each displayed an idiosyncratic orientation to teaching, learning social interactions and susceptibility for dissonance between professional autonomy and school institutional conformity. The espoused conflicts that existed for the administrators in the study were concerned with conformity with their employing authority. Elizabeth believed that the roles of administration were changing in an increasingly intensifying way, with continuing emphasis being placed on compliance and auditing. Such changes she thought were the most frustrating aspect for her to accept. She also expressed concern for the lack of provision of time and suitable resources to implement them. She responded by indicating that she was happy and that she did sometimes feel overworked. However, although she admitted that she believed that she was being overworked, she reconciled the overworking, as being an inevitable part of her job. When asked how she managed personal autonomy with school conformity, she said that she always had difficulty complying with her employing authority introducing educational initiatives to which she was opposed. Individuals such as Elizabeth resist power being exercised over them and if felt thwarted can produce negative emotions such as anger and feelings of helplessness, which can lead to the occurrence of stress. These are traits that have been discussed as indicating an acceptance for the blue way of thinking. Elizabeth pursued more self-

autonomy than most other teachers at the school and was also shown to be capable and able to use competitive elements to get ahead. Traits exhibited by individuals expressed in the orange way of thinking. Michael too believed that the rate of changes that were being implemented from outside agencies had also steadily increased. These changes he believed concerned administrative roles. For Michael, he believed that working with and conversing with adults was his greatest challenge. He freely admitted that this was due in part to the fact that he believed that he was too shy and introverted. Michael liked to do things his way whenever possible. He liked to be on his own when at work and seemed to keep a distance from other teachers. He openly admitted that he disliked confrontation with teachers who had opposing views to his own. He believed that as the 'boss' he had the say on how his school operated.

In respect to the teachers, Mark indicated that in general he was happy in his job. However, he also responded by saying that he would be happier if the senior management would listen to his concerns in respect to discipline issues. This he said, would make him feel happier in his teaching position. The case study of Mark indicated that his espoused philosophical views regarding education were the most congruent with his employing schools administrators when compared to the other case study teachers. For Mark, he believed that unmotivated students were the most frustrating aspect of teaching and the management of student behaviour. Mark firmly believed that the focus of responsibility should be placed on individual students to change their own behaviour. However, he often felt that teachers at his employing school were not able to do this because of the imposed views of senior management.

Samantha expressed some dissonance between her philosophical views regarding education and her employing school. Samantha's main reason for not being happy in her present position was concerned with issues regarding self-efficacy and conflict with senior management in that they did not allow her to work in the way she wanted. These are traits that can be seen in the red way of thinking. Another area of conflict for Samantha, like John, was with her perception of the role of the school administrative staff. She believed that they did not adequately consult and allocate adequate resources and personnel. As a consequence, Samantha felt that she was losing capability in bringing about desired outcomes of student engagement and

learning, especially with those students who she perceived to be difficult and unmotivated. Individuals such as Samantha resist power being exercised over them and if felt thwarted can produce negative emotions such as anger and feelings of helplessness, which can lead to the occurrence of stress. These are traits exhibited in individuals who think in the red value meme level. She expressed concern, that her present employing school allowed students to run the school. Teachers, she said were undervalued by students and by the senior management.

John believed that too much time and effort was spent on ensuring the wellbeing of students as opposed to the wellbeing of the teachers of the school, especially in the support of teachers with regard to student management concerns. Another area of conflict for John was with his perception of the role of the school administrative staff. He believed that they did not adequately consult and allocate adequate resources and personnel. John also believed that the school administration were to blame for a poor delivery of the curriculum which he considered to be inadequate. For John, his greatest frustration in teaching was concerned with students who had no interest in learning. He believed that he should have been provided with more autonomy to deal with such students. When John was asked whether he was happy in his job he responded by saying that he was at times. However, due to perceived frustrations in and outside of the classroom John had seriously considered leaving the school on many occasions. Much of his frustration was with the perception that the management at his school took away much of his autonomy. He believed that as a professional teacher he should be able to exert more control over his students.

Anne much like Samantha also expressed concern with change that was imposed on teachers from the schools' administrative staff that had been sanctioned without prior consultation with the teaching staff. Anne was asked if she was happy in her present position. She responded by saying that she was not and had decided that she would consider a different career altogether, such as a career in speech therapy where she believed she would have more control in her work. This is a typical trait often found in individuals who think in the red value meme. During interview, she readily expressed concern in that she felt that her schools' administrative staff did not cater to the needs of teachers. Such as for the management of student behaviour and dealing with students with special needs which were perceived as being the most

challenging and frustrating aspects of teaching. She strongly believed that her employing school did not adequately support her in this endeavour. During interview, she stated that if she felt thwarted it produced negative emotions in her such as anger and feelings of helplessness. These types of emotion can lead to the occurrence of stress. Anne also expressed concern during her interviews that dealing with special needs students was her greatest challenge. The challenge involved the restructuring of work programmes to cater to such students' needs. Although she was occasionally provided with a teacher aide to help with the writing of these types of programmes, she did not think that the provision was adequate. In general, she felt that she was not coping well at all. Anne was also concerned with one particular special needs student because she felt threatened by his physical size. Her specific concern was with regard to possible incidences of a violent nature from the student. Anne was not happy with her school principal who she believed suddenly decided that the school community should accept these types of students into the school, especially when no one in the school had been trained to deal with such individuals. Anne believed that there should have been a process of consultation used in the first instance. When asked how she dealt with these perceived challenges Anne responded by saying that she used routine, structure and a lot of her 'personal' time. This particular finding is supported in prior research where higher burnout rates amongst teachers have been found to correlate with the number of students with special needs students in the classroom. Specifically, three environmental factors were found to have a negative correlation with burnout: the psychological factor, the organisational factor and the social, with the latter being the most significantly negatively correlated with burnout. Where the less support the teacher experienced, the higher was his/her level of propensity for burnout (Talmor, Shunit et al., 2005).

The findings of this study indicate that a common link that appears in this study with regards to teacher motivation, job satisfaction, stress and professionalism, is with a lack of teacher autonomy such findings were consistent with research conducted by Brunetti (2001) and Jones (2000). The findings are also further supported in the literature where workload, reward, community, fairness, values and control have been identified as influencing a teacher's engagement in a school setting that represent the potential mismatch that can occur between an individual teacher and their job or other individuals in the school. When accountability measures and

organisational inequalities overwhelm teachers, especially those teachers whose ideologies or skills do not match work demands, feelings of lack of control, work overload and a perceived lack of fairness can occur (Farber, 1984; Gmelch & Torelli, 1993; Jones, 1993; Manlove, 1994; Myung-Yung & Harrison, 1998; Fore III, Martin et al., 2002; Taris, Van Horn et al., 2004). When teachers are overloaded; a lack of professional community can result, with an associated loss of collegial support. Lack of professional community has been found to derive from lack of communication between teachers who are just too busy with their respective work commitments (Ayres, Schalock et al., 2002). A lack of reward, and perceived value conflicts has been shown in this study to occur when teachers not only see the mismatch between their belief systems and the demands and ideologies placed on them, but the mismatch they perceive between work demands and their perceived roles and responsibilities (Friedman & Farber, 1992; Cherniss, 1997; Evers, Brouwers et al., 2002; Pines & Maslach, 2002).

The analysis and interpretation of the findings from both the quantitative and qualitative data of the research suggest that the teachers' views were not at all congruent with the school administrators. In fact, the values and beliefs of the administrators, according to this study were at variance with, and found often to be in dissonance with that of the teachers.

For example, where the teachers espoused valuing professionalism, the school administrators espoused the category of managerialism, the administrators values in this category clearly belonged to that of the orange level of thinking. This particular level is orientated towards personal success, wealth, material possessions, and competitiveness. Conversely, the teachers' values and belief systems way of thinking were shown to be in opposing levels on the hierarchical levels of thinking such as seen in the green and turquoise levels value memes. Where the green and turquoise levels way of thinking are orientated towards seeking comfort in groups, valuing community, seeking diversity and are directly opposed to affluence. Current leadership and political power in the nations of the western world, for example Australia, are currently in the orange level way of thinking, and education systems still currently reflect the values of their governing systems (Beck & Cowan, 2006). Teachers in this study were seen therefore to be at present caught between these

opposing belief systems, which could be a causal factor contributing to stress. It is of importance to note that this clash of values and belief systems may not only affect teachers' working conditions but also could cause an imbalance of recognition for teachers in school contexts. The study has shown that even though the participating teachers were not overtly ambitious they all wanted at some time to succeed within the context of their school and careers. Paradoxically, where the belief system of the teaching profession is to succeed professionally, it at the same time does not like to be identified as being ambitious. It is important therefore that teachers, administrators and schools be made aware of this possible conflict and the possible ramifications, in order for the adoption of appropriate strategies to alleviate this problem.

***Research question 2: What were the worldviews of the participating teachers and administrators?***

In response to this research question profiles of each research participant were elicited using a values and belief questionnaire test profiler based on the developmental levels suggested by Clare Graves (1981) and Beck & Cowan (1996). The values test instrument was not used to determine what an individual research participant thought but how s/he thought. The resultant individual profile was not used to determine a particular type of personality. It provided for a 'snap shot' of a moving picture of the participant in a particular circumstance at a given point in time. The instrument in essence was used to track dominant value memes (or value systems or worldviews) that were operating in each individual. To complete the assessment each research participant had to select from a series of statement clusters those that best resembled "most like myself" and "least like myself". The instrument was designed as a forced choice format with individuals having to either accept or reject the statements. The resultant profile indicated the participants' dominant value meme on eight scales. For example, if an individual rejected a particular value meme and let us presuppose that it was the blue value meme. Due in part because they wanted to either reject or not be associated with that particular worldview; they would select non-trait statements that were "less like myself" designed to elicit that value meme. Conversely, if they wanted to accept or be associated with the blue worldview then they would select portrait statements that would indicate "more like

myself". Where there was no reaction then participants would skip over the statements. The study suggests that both the teachers' and administrators' beliefs from a worldview perspective form a coherent and interdependent set of value and belief systems which can be orientated to the contexts of teaching and learning. It became apparent that the teachers' and school administrators' beliefs about self, education, teaching and learning, assessment, change and conflict, stress management and propensity for burnout played a significant and central role, however, recognisably different in all participants. The findings from the study also suggest that worldviews or value memes of teachers affect all aspects of their lives. Teachers who share similar worldviews have similar beliefs regarding educational issues. However, teaching is influenced by experience and context.

The following are the espoused worldviews (value meme levels) of each participant: Samantha's portrait accepted worldviews (value memes) were green, communitarian humanistic value meme, FS relativistic, and turquoise, holistic global value meme, HS holistic, her non-trait rejected worldviews (Value memes) were yellow integrative systemic value meme, GT systemic. John's portrait worldviews (value memes) were Turquoise, holistic global value meme, HS holistic and yellow integrative systemic value meme, GT systemic, his non-trait rejected worldviews (value memes) were red, impulsive power value meme, CP egocentric, and blue, purposeful truth value meme DQ absolutistic. Mark's portrait worldviews (value memes) were Turquoise, holistic global value meme, HS holistic, and purple, magical safety value meme BO animistic, his non-trait rejected values memes were red, impulsive power value meme, CP egocentric, and orange, achievist strive value meme ER Multiplistic. Anne's portrait worldviews (value memes) were purple, magical safety value meme BO animistic, and red, impulsive power value meme, CP egocentric, her non-trait rejected values memes were yellow integrative systemic value meme, GT systemic, and blue, purposeful truth value meme DQ absolutistic. Elizabeth's portrait worldviews (value memes) were blue, purposeful truth value meme DQ absolutistic, and orange, achievist strive value meme ER Multiplistic, her non-trait rejected values memes were yellow integrative systemic value meme, GT systemic, and red, impulsive power value meme, CP egocentric. Michael's portrait worldviews (value memes) were blue, purposeful truth value meme DQ absolutistic, and orange, achievist strive value meme ER Multiplistic, his non-trait rejected values

memes were yellow integrative systemic value meme, GT systemic, and red, impulsive power value meme, CP egocentric. Interestingly, four of the participants rejected the yellow integrative systemic value meme, GT systemic way of thinking. An account for this can possibly be explained by the account of Beck and Cowan (2006) who suggest that this level of thinking has only recently being adopted in the western world.

***Research question 3: How do teachers and administrators manage situations of crisis and conflict?***

In addressing this question and the following question 4, the study used interviews and lesson observations as data collection strategies. Each respondent read written transcripts of the interviews and observations for credibility of the data yielded. All teachers and administrators in this study expressed strong feelings of conflict, frustration, stress, or discontent in their respective teaching roles, an indicator of possible 'teacher burnout'. However, the way in which they dealt with these problems was different for each teacher. Individual coping strategies fell into two distinct categories that involved either direct action from the individuals in order to eliminate the source of stress, or to lessen the feelings of such stress. The most frequent coping strategies that were employed by the participants involved: trying to put problems into perspective, avoiding confrontations, endeavouring to relax at school or at home, taking direct action to deal with problems, and discussing stressful episodes with others. Such findings were consistent with the extant literature that was reported by (Kyriacou, 2001). The study seems to suggest from the findings that a teacher's perception of the world may influence that teacher's affective orientation; in that similar personalities are drawn naturally into those professions that involve the provisions of service for humans. Most service professionals such as teachers are humanitarians (Pines, 2002). Humans are also naturally drawn to work environments, relationships, places of worship, belief systems and other people which resonate with their own peak value system that provides them with a comfort zone, as could be seen in the collegial bonds of the participating teachers. Samantha was one such teacher who actively sought out those teachers with whom she felt most comfortable due to their similar educational backgrounds and interests; conversely she avoided those teachers that were most unlike her.

As discussed earlier, the two school administrators, Michael and Elizabeth, did not indicate that they suffered as much from stress when compared with the teachers. One possible explanation for this could be gained from an understanding of a study that was conducted by Short and Johnston (1994) who found that the type of power base that school principals and deputy principals held could have direct consequences for themselves and their teaching staff. A working environment that was provided by principals that actively supported teachers to exercise choice and to exercise decision control over their work environment decreased the amount of stress experienced by such teachers. Conversely, more stress was found to occur in those schools that did not support teachers in this way. However, in contrast the weaker the power base held by school administrators, stress amongst such staff could become more induced. Both the school principal and deputy principal at St Catherine's High had strong power bases, with referent power to decision making thus supporting their self-efficacy and possible amelioration to stress.

In times of stress, the administrators Michael and Elizabeth would seek assistance; both would often speak over concerns with their respective spouses after school. Michael, like Elizabeth, also often internalised possible perceived threats, problems or issues that were stressful, and endeavoured to put them in perspective by reminding himself of what was in fact important. When John was asked how he managed stress he responded by saying that he coped with stress by internalising such stress and trying to rationalise it. John usually coped with stress by walking and getting away from the particular stressful situation or context. John also stated that if he felt threatened by a stressful situation he could not control that he would seek assistance.

In respect to the teachers Samantha said she often meditated and sometimes listened to music. She felt that music helped her to feel better with her life. She also internalised problems and tried to put things into perspective by trying to remind herself what was important. However, she did say that this was difficult to achieve. If threatened by a situation that she felt that she could not control Samantha would seek assistance. Samantha perceived external factors were causing her to experience problems in her teaching and for her to be experiencing stress; her attitude of blaming herself and not being sure how to bring change to her environment seemed

to be where she seemed to be having most difficulty. Samantha was also found to be very susceptible to groupthink. She also felt the need to fit in and feel accepted by others. This feeling of wanting acceptance, can and often overwhelm an individual, especially in terms of being able and willing to agree or to disagree with an issue, so much so that such an individual will often agree to conflicting or dissonant views, which can be a causal factor often associated with stress and possible burnout (Harmon-Jones & Mills, 1999).

Mark indicated that he coped with stress by withdrawing and becoming quiet, he believed that no one really cared or could help him anyway so he could not see the point of seeking assistance. He also internalised problems very much like Samantha and tried to rationalise things in an attempt to reduce such stress. Mark would also avoid any possible conflict with others. He often blamed external factors as possible causes of his stress.

Anne indicated that she coped with stress with difficulty, she internalised problems much like Samantha and Mark, and tried to rationalise possible issues in an attempt to reduce such stress. Anne would avoid conflict with others if at all possible. She believed that individuals could come to some sort of understanding on how to deal with an issue. When encountering a possible conflict, Anne would try to separate herself from the problem; she believed that talking with others often helped in reducing conflict. If faced with a perception of stress, Anne would seek help. She believed that most instances of stress that she had encountered had invariably been the result of someone else's actions. However, unlike Samantha, Anne was much more vocal in her account of her conflicts, which she perceived she had with her employing school.

These findings suggest that when dissonance between teachers' worldviews and their roles and responsibilities as teachers is experienced as an unpleasant drive state [stress], the individual is motivated to reduce it. The problem as far as predicting the actual behaviour of an individual's response is that there are several ways to reduce such tension. However, all individuals in this study have all at some time been persuaded to behave in ways, which are inconsistent with their private attitudes. This is referred to as the paradigm of induced compliance. In the induced compliance

paradigm, cognitive dissonance is established by a discrepancy between one's behavioural and attitudinal cognitions (Aronson, 1992; Sloane & Williams, 1994; Aronson, 1997; Harmon-Jones & Mills, 1999).

***Research question 4:** How are participating teachers and administrators beliefs about educational issues related to their worldviews?*

In regard to the administrators, Elizabeth's and Michael's beliefs and values regarding education were clearly orientated towards the blue way of thinking. Where the blue values meme is sacrifice-self orientated. In this level, the world is seen as an orderly place where there is meaning and purpose under the control of authority. This is why in this level respect for authority, loyalty, and rules are valued. A life style based on "one true way" and "going by the book" in dealing with problems or issues in life is very characteristic of this values meme. Therefore, people are expected to accept the judgment of the authority and play their roles to maintain a healthy society. The value meme has certain belief characteristics in that: individuals sacrifice self for the cause of conduct is based on absolute principles, character is built on laws, discipline, morality and social order is rigid. This assertion was supported in the values profile tests for both participants.

Mark saw the purpose of education as being the process where individuals should be developed in all their facets. He believed in a holistic education that should provide society with well-educated individuals this statement fits well with the turquoise way of thinking. Although Mark saw change as inevitable in all aspects of life, which is a dimension expressed in the yellow and turquoise levels of thinking, he found it difficult to accept change readily. Mark's beliefs and values regarding education were clearly orientated towards the turquoise way of thinking. From an educational perspective, Mark liked to actively pose problems in different ways to his students to get them to seek as many answers as they could. He acted more as a consultant during the lesson observations rather than an evaluator or judge.

Samantha, saw a school as being a place of academic learning and not a place for socialising. However, she did make a point of saying that this judgment was based in the context of her own values and that the values of the school in general were not

necessary wrong. When asked what she believed to be the role of teachers in the context of teaching and learning, she replied by saying that teachers should facilitate learning amongst students. Teachers should also be able to inspire. This statement fits well with the green level of thinking. Samantha believed that students should be taught traditional practical skills. These concerns with practical and traditional skills are compliant with the purple value meme of thinking. In respect to educating and training, these green individuals are very much involved in exploring each other's feelings. Group activities are sought and encouraged, as is experiential learning.

John saw the purpose of education as a means of helping people to discover what their innate abilities were and nurturing these abilities to fruition. He also saw education as a means of preparing young people for a meaningful role in society. John also expressed the notion that he thought education, and in particular schools, should have a role in socialising students into society. John thought that as a result of pressure from society teachers were expected to teach life skills to students that really should be the responsibility of parents. Much like Mark, John's beliefs and values regarding education were clearly orientated towards the turquoise way of thinking.

Anne's beliefs and values regarding education were clearly orientated towards both the turquoise and red ways of thinking. Anne responded when being interviewed that she saw the purpose of education as being the process where individuals are developed in subject specific facets. When asked what she believed to be the role of teachers in the context of teaching and learning, Anne responded by indicating that teachers should act as facilitators over the learning process in schools. However, she also expressed a belief that students had a role or should have a role in their learning. She liked hands-on activities and students following her lead. She believed in exciting her students and allowing them to be independent and strong individuals. This statement is compliant with the red worldview way of thinking in that allowances are made: for self-direction, expression and independence in learning opportunities that challenge and test existing skill sets. Teachers are seen to be more like coaches than a lecturer and as such expect their students to assume more responsibility for their own learning where passive learning is not encouraged.

## **5.7 Significance and Originality**

1. This study is one of the first to consider an understanding of the interplay between teachers' prevailing worldviews and their work environments and in ascertaining whether there is a relationship between teacher stress and prevailing teacher worldviews.
2. The theoretical significance of the study has indicated that the Spiral Dynamics model approach can be adapted successfully to the school and educator context. The implications associated with this type of research are also significant, as the impact of perceived stress upon teacher retention and recruitment is seen to be substantial (Jarvis, 2002).
3. This study supports previous research that has suggested that quantitative and qualitative data can be successfully intertwined (Creswell, 2005).

## **5.8 Implications**

According to the framework provided by the Spiral Dynamics model different people are at differing levels of human development and thus have accordingly different value systems or worldviews. These attract or repel different surface expressions of actions, values, beliefs and actions, which will often conflict with those of others. It is with the failure to recognise this dimension particularly in the area of education, which can often result in superficial solutions to problems. These types of solutions do not get to the root cause of possible conflicts, and not to the deep level decision making systems that lie within individual teachers and educational organizations. The researcher argues therefore that we all need to determine not what people are saying or what they believe, but more importantly to determine why individuals say and believe as they do. A grasp of the understanding of the complexities and differences amongst people can enable teachers and administrators to recognise the diversity of different approaches to teaching, and the differing beliefs and values of individuals regarding education and produce real workable solutions. The researcher argues that based on an understanding of teachers' beliefs and value systems from a worldview perspective that individual teachers can be identified that are more likely to suffer stress and potential burnout in their work environments. Therefore, significantly, schools can identify those teachers who require support in the development of teacher professional development programmes to facilitate those

individuals to develop adequate coping strategies, which are adaptive to the inevitable demands and pressures of the teaching profession. Individual contributory factors could also be utilised to inform theory on position allocation and actual job selection procedures in schools.

When teachers and administrators within this study were asked what they liked about their jobs, they invariably responded in terms of their satisfaction, or lack of satisfaction, specifically in regards to human relationships. These relationships were with colleagues, administrative staff, and parents or with students. It seemed that interpersonal relationships were a very important dimension to all participants to some degree.

However, many teachers in this study tended to feel let down in this respect. They did not think that a culture of collegial support existed at their school. Rather in contrast, a culture of individualism was seen to exist which tended to increase some emotional stress particularly for Samantha and Mark. An illusion could be seen to be fostered in the case of Samantha who believed that other teachers were coping with the daily demands of teaching and that her own fears were born in part out of her perceived incompetence. This was perpetuated by the fact that she was unable or not committed to the daily habit of communicating with her colleagues that often resulted in small interpersonal and professional differences. This was also evident in the case of Mark who actively withdrew from collegial contact during times of stress. The findings from this research in the elements of 'social and emotional' support, are consistent with a study that was conducted by Punch and Tuetteman (1996) who suggested four potential avenues for the amelioration of teacher stress: these avenues were all concerned with the notion of support, including support from school principals, support from colleagues, praise and recognition and support for coping with student misbehaviour.

Much of the tension that has been shown to exist at St Catherine's has also been shown between the teachers and their 'management' by the school administrative staff, especially in regard to how decisions have been made about such issues as student discipline. Findings during the study suggest that there were clear inconsistencies between the expressed views of the participating teachers regarding

student management concerns and the school administrative staff. On the one hand, all teachers expressed the desire for assistance at some time from their administrative staff in dealing with problematic students, whereas, the school principal firmly believed that each teacher should be able to control such students without assistance. For example, in respect to student management and discipline, Michael believed that teachers should manage such issues. He believed that teachers were sometimes a causal factor in perpetuating some student misbehaviour in their classrooms.

*“Discipline should be concerned with maintaining, guiding and managing students in order to facilitate a safe learning environment for all. Teachers should hold authority in their respective classrooms. They should be in charge, if not chaos would ensue. I believe that the classroom teachers should make the decisions in his or her classroom. Most problems that have occurred with teachers in managing their students have been usually as a result of the teacher not setting down firm guidelines. It’s simple really; students need to be taught what is acceptable and what is unacceptable in regards to their behaviour. They need to know right from wrong. Misbehaviour should be dealt with immediately.” (Interview with Michael, 03/09/2007 pg.83).*

Decisions are and have been initiated using a top-down decision making approach from the leadership at the school. Teachers who are on the receiving end of these decisions would like to see the right to actively participate in the decision-making processes, which affect them directly. Both school principals and their teachers need to make considered and mutually beneficial decisions that respect all stakeholders’ held values and beliefs. At the heart of the matter is the actual process of the clarification and identification of the values and beliefs of the whole school community. Specifically, St Catherine’s and schools in general need to identify what it is that they actually value and believe as professional educators both as a whole school community and as individual stakeholders. This process would facilitate an open atmosphere of trust where collective learning could take place. This view is consistent with a prior study that has suggested that communities should be formed

from the values of inclusivity, respect, and the norms are commitment to reflection, dialogue, critique and the understanding of diverse perspectives (Shields, 2001).

Most of the participating teachers and administrators who took part in this study had never examined their practices in terms of their underlying values and beliefs and often had found the process quite daunting and challenging. It is never an easy task to express your deeply held assumptions about how you view 'your' world to another. However, a word of caution, in order to address this change, teachers' and school leaders must first be open to change. Yet far too often change usually results from a reactive mindset whereas a proactive mindset is required. School leaders are too often engaged in change due in part to problem solving instead of actually anticipating change. These two differing approaches emanate from two perspectives. The first perspective is orientated towards the past whilst the second perspective is orientated towards the future. Fullan (1994) proposed that change can be likened to a journey that is planned through uncharted waters with participants who do not get on travelling in a leaky boat, with an enemy that is shooting at you. We must all recognise that change and inevitable growth is optional, yet many an educator is being encouraged to consider change with respect to the future of education.

## **5.9 Limitations**

The findings of this study provide valuable information for teacher practitioners and for scholars however, several limitations need to be noted.

1. A limitation stems from the size of the sample of research participants and the fact that the sample of teaching and administrative staff came from one school.
2. A larger research sample from a number of schools would be required to provide a more comprehensive generalisation of the relationship among teacher worldviews, value memes, stress and burnout. One must exercise caution when endeavouring to interpret the results from this study beyond the context of the setting of the study. The data that were obtained for the research study were drawn from the environment of a single school, by teaching and administrative staff who provided self-administered reports on

their value and belief systems, and their experiences within a school context. It is possible that other factors related to burnout are and have been experienced by teachers at different levels of education.

3. Another limitation is the reliance on self-report data. It is difficult to ascertain whether the data reported by the respondents were truthful in all circumstances, as some responses may have been falsely reported to provide a 'positive' picture of the participant. Trustworthiness is an issue with this type of research. The research participants have to be 'trusted' in providing truthful responses regarding their beliefs and values. It may well have been a possibility that some of the research participants may not have adequately considered or understood the questions posed in the values test and interviews.
4. Determining the actual worldview of an individual is problematic in that there are as yet no empirical tests that could be employed in the determination of such a construct. These issues, make it difficult to fully access their beliefs and hence their worldviews. The information gained can only be limited, in regard to these issues and the context of the school. Thus, the inferences that the researcher has provided in the study of the participating teachers and administrators cannot be seen to be absolute. Finally, this study did not intend to initiate any change in the participating teachers.
5. A further short coming with this research is at the heart of worldview analysis: that is in assessing the factual adequacy, logical coherence and explanatory power of the participants' worldviews (value memes). According to Hasker (1983) in addressing this concern the 'testing' of an individuals worldview should focus on these three key issues:
  - Factual adequacy: does the worldview's scope of explanation account across time and comfortably agree with the material facts? Are there contradictions to such generated facts? Do the facts seem credible? However, facts can generally undermine the truth, in that quite diverse views can be empirically equivalent.
  - Logical coherence: do claims within a worldview support or deny one another?
  - Explanatory power: a credible worldview should unify the facts showing how they relate, interact and work together.

The data for this study were collected primarily by way of in-depth interviews supplemented by observations and conversations. Therefore, the limitations imposed by the human as research instrument do apply. The study is restricted by providing only a snap-shot perspective by virtue of the limitations of time. Therefore, it is important to acknowledge that factors within a school are not constant over time. Consequently, it is necessary to describe the temporal context in which the study was undertaken.

6. Worldview analysis therefore, can be notoriously brittle with difficulties relative to these three challenges; a process of comparative testing is a key element. The reader has to be persuaded by proof (or apparent proof) and that by appeals to emotions and to the credibility of the author. Researcher bias also posed a challenge to this study in that the researcher's assumptions, own world view, theoretical orientation are acknowledged as influencing the course of this study. To establish credibility in this regard, required clarification of what the researcher brought to the study. This clarification, in significant measure, was in part achieved through participant checks and clarification of transcribed accounts of the interviews, conversations and observations. These were shown to each participant for their perusal, and amendments were made to the data when required. Worldviews are highly personal and people are individualistic in their response to it. Therefore, this context, as a focus for research, was amenable to a case study approach so as to allow the emergence of descriptions and interpretations from which to capture and conceptualise the phenomenon of teachers' worldviews. Kenny and Grotelueschen (1980), as cited in Merriam (1991) , argued that a case study is also appropriate in those instances when information shared by participants is scrutinised on grounds of credibility rather than on its truth or falsity. In large measure, this study focused on teachers' beliefs and value systems which could not be assessed with respect to whether they were right or wrong.

## **5.10 Recommendations from this Study**

1. Conflict over values could be elicited through the values test profiler (Beck & Cowan, (2006), and through adequate counselling. Counselling has been shown in the literature to facilitate more appropriate and consonant mental models in individuals that develop motivation, sense of purpose and clarity regarding their own abilities. The success of such counselling is attributed to an increase in a personal awareness often leading to the re-examination of, and possible changes in, personal values and beliefs and priorities, with their working environment (Grimley, 2001; Carlyle & Woods, 2002). Once individuals understand themselves they will be able to make better-informed choices in their lives and at the same time be more in charge of it.
2. The development of collegial support that can enable individual teachers: to express their emotions, whether they are negative or positive; to admit their failures and weaknesses; and to voice their resentment and frustration. Such support could have the potential to alleviate much of dissonance that has been espoused by the teachers in this study. Therefore, it would be prudent of schools to adopt such a collegial support development programme. This notion is consistent with previous studies that have concluded that social support has a significant negative effect on stress and individuals who have social support are far less likely to experience such stress (Gil-Monte & Peiro, 1997; Brissie, Hoover-Dempsey et al., 1998; Um & Harrison, 1998).
3. Schools can begin to explore individual factors that could contribute to stress amongst teachers. A consequence of such research could facilitate the fostering of a healthy working environment, which could be conducive in encouraging a greater occupational commitment amongst staff.

## **5.11 Directions for Future Research**

This research study was a first step in understanding the interplay between teachers' prevailing worldviews and their work environment and in ascertaining whether there was also a relationship between teacher stress and prevailing teacher worldviews. A suggestion for further research would be to provide further case studies for other practising teachers in a range of schools, with further direct observations of teachers in practice to help generalise the findings.

## **5.12 Reflection**

The research objectives of this study were: to examine the individual experiences, challenges and rewards of teaching in a small rural school; and to ascertain whether there was a relationship between teacher stress and prevailing teacher worldviews. In summary this present study has shown that when dissonance exists between teachers'; worldviews and their roles and responsibilities as teachers': stress and frustration. However, whilst a situation may be perceived to be stressful by one individual, another may interpret it as harmless. It is therefore the mediating aspect of cognitive appraisal that will ultimately determine whether the outcome is experienced as stress. There seems from this study to be no single element in isolation that is a causal factor in the perception of the concept known as stress. Rather, the researcher would recommend, based on the study outcomes, that it is the interplay between environmental stimuli, the cognitive appraisal through worldview, and the individual and supportive resources, that combine to produce either a stress inducing transaction or not. The worldview model seems from the study to be a useful tool in providing some understanding of how the belief of individual teacher's fit within a school context. However, the model must be used with caution as worldview analysis is notoriously brittle with difficulties. Determining the actual worldview of any individual is very problematic in that there are as yet no empirical tests that could be employed in the determination of such a construct. Therefore, such issues make it difficult to fully access their beliefs and hence their worldviews. The information gained can only be limited, in regards to these issues and the context of the school under study. Thus, any inferences that the researcher provides in a study cannot be seen to be absolute.

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## Appendix A

The Values Test: Mapping the currents of change  
Written by Don Edward Beck and Christopher C, Cowan (2002)

### Instructions

There are 20 separate questions with 7 (seven) options under each. You will have a total of 15 (fifteen) points to distribute or ‘spend’ among the 7 (seven) options in each of the questions. For example, you may choose to put all 15 (fifteen) points on a single statement, or divide the points between just two statements, or break up the 15 (fifteen) points in any other distribution you find appropriate. Be sure that the total set adds up to 15 (fifteen). There will be a total of 300 (three-hundred) points used in the test.

1.	<b>I like a job where...</b>	Points
a	Loyalty earns job security and we are treated fairly.	
b	I make lots of money, people stay off my back, and I can do what I like.	
c	Our primary concern is the health of the planet.	
d	Our circle is stronger as we work together and sacrifice for each other.	
e	Successful performance advances my career and I can get promoted.	
f	Human feelings and needs come first as we share equally in a caring community.	
g	Systemic and long-range thinking count more than people, money, traditions, or quick fixes.	

2.	<b>The words and phrases describe me best...</b>	Points
a	A world citizen: interested in a grand synthesis of all energy, matter, and life in the universe.	
b	A person who loves power; lives for the moment; likes to be respected for feats of strength, intelligence, or conquest.	
c	A kindred spirit; clannish and superstitious, senses the spirits in nature, objects, and animals.	
d	A humanist egalitarian; believes every human being should have an equal opportunity for development.	
e	A competitor who values material possessions and technology; thinks pragmatically and pursues success.	
f	A person with strong moral convictions; is patriotic; caught up in culture pride; a true believer.	
g	A non-materialistic; non-compulsive; internally driven; variety seeking, accepts life as what it is.	

3.	<b>I prefer an organization that...</b>	Points
a	Treats everybody by the same rules and is committed to going by the book.	
b	Lets me get what I can off the top and gives me the respect that I deserve.	
c	Adapts to its natural environments so the organisational form is determined by its current functions.	
d	Connects to a global network of information and makes decisions based on nature's ordered systems.	
e	Preserves our traditional customs, observes seasonal celebrations, and protects our close-knit community.	
f	Tends to the inner and outer health of its community so they can become fully human.	
g	Thinks strategically and acts competitively to be successful in its niche.	

4.	<b>Pay and rewards should be determined by...</b>	Points
a	What people like me need to keep the wolf away from the door.	
b	Individual contributions based on knowledge, levels of competency, and a degree of importance to the function that people hold.	
c	What you are quick enough to get, since it's everybody for himself or herself in this dog eat dog world.	
d	The collective needs of the entire community so they benefit everyone instead of the select few.	
e	Personal ambition and initiative, successful accomplishments, and willingness to take risks.	
f	What fosters the development of perspectives and programmes that contribute to global survival.	
g	The need to maintain our standard of living, honour seniority and loyal service, and provide for the future.	

5.	<b>My own career priorities are determined by...</b>	Points
a	Whatever will allow my work group to stay together like a family.	
b	What I have to do to get what I want without having to give in to anybody or conform to any system.	
c	What is just and proper, since my job and profession should reflect my rightful place in society.	
d	The goals I have set for myself in my pursuit of the good things in life.	
e	How I can dedicate myself on behalf of human causes that work to reduce hunger, poverty, racism, and violence.	
f	What I really want to be doing, now, even if it may mean charting a whole new course.	
g	A need to unite with other minds around the planet to work for a new global order.	

6.	<b>The world is...</b>	Points
a	Under the control of destiny and the directions of a Higher Power.	
b	Like a jungle where the strongest and most cunning must exploit to survive.	
c	An elegant balanced system of interlocking forces.	
d	A magical place alive with spirit beings, where there is safety and security in tribal ways.	
e	A pool of unlimited possibilities and opportunities for those willing to take some risks.	
f	The human habitat in which we share the experiences of living.	
g	A chaotic organism driven by differences and change, but with no guarantees.	

7.	<b>In an ideal world...</b>	Points
a	We feel safe knowing the spirits of our ancestors watch over us.	
b	I have been heroic in conquest and my name will live forever.	
c	Righteousness triumphs over evil and the faithful receive their rewards.	
d	I have achieved material success and enjoyed the very finest this world has to offer.	
e	We all join hands and hearts to prosper equally in peace and togetherness.	
f	Our population matches the available natural resources, as each person learns to do more with less.	
g	All living things cohabit Earth in balance and harmony as part of the universal order.	

8.	<b>Whenever I am criticised, it is usually for being...</b>	Points
a	Too rebellious and self centred, a power seeker who likes to rock the boat and gratify senses.	
b	Too ambitious and materialistic, a wheeler-dealer game player who exploits others in an attempt to 'win'.	
c	Too abstract and metaphysical, something of a spiritual wanderer caught up with planetary issues.	
d	Too sensitive and caring with people, a naïve social worker type who is blind to the realities of life.	
e	Too ridged and judgmental, a person who is as such restrictive, and unforgiving.	
f	Too superstitious and mystical, a person plagued by charms, spirits, fortune and spells.	
g	Too aloof and detached, an individual who does his own thing. Lacking self-sacrifice and commitment to others' good.	

9.	<b>When under real stress I...</b>	Points
a	Rely on my own faith and convictions to see me through adversity.	
b	Get down and fight even harder to survive in the world where “the toughest get the most”.	
c	Recognise why it is there and decide whether to live with it or remove it, even if it means a complete life style change.	
d	Shift to another plane of consciousness to transcend the animalistic elements producing it.	
e	Do things to make fortune smile on me and go to a place where I feel safe.	
f	Manoeuvre strategically to influence both people and events to get back in control of the situation.	
g	Seek support and assistance from others to explore and deal with my feelings and fears.	

10.	<b>My deepest beliefs and values ...</b>	Points
a	Come from the customs of my people and our ancestral folkways.	
b	Are what I want them to be and it is no-ones business but my own.	
c	Stand on the firm foundation of my faith and the one true way.	
d	Grow from confidence that we have the power to shape tomorrow.	
e	Emerge from an acceptance of our need for interdependency and sharing.	
f	Reflect very personal views of what will work in a complex and changing world.	
g	Blend my energies with natural forces in the universe beyond time and space.	

11.	<b>In my job it is less important that ...</b>	Points
a	Loyalty earns job security and we are treated fairly.	
b	I make lots of money, people stay off my back, and I can do what I like.	
c	Our primary concern is the health of the planet.	
d	Our circle is stronger as we work together and sacrifice for each other.	
e	Successful performance advances my career and I can get promoted.	
f	Human feelings and needs come first as we share equally in a caring community.	
g	Systemic and long-range thinking count more than people, money, traditions, or quick fixes.	

12.	<b>These words and phrases do not describe me ...</b>	Points
a	A world citizen: interested in a grand synthesis of all energy, matter, and life in the universe.	
b	A person who loves power; lives for the moment; likes to be respected for feats of strength, intelligence, or conquest.	
c	A kindred spirit; clannish and superstitious, senses the spirits in nature, objects, and animals.	
d	A humanist egalitarian; believes every human being should have an equal opportunity for development.	
e	A competitor who values material possessions and technology; thinks pragmatically and pursues success.	
f	A person with strong moral convictions; is patriotic; caught up in culture pride; a true believer.	
g	A non-materialistic; non-compulsive; internally driven; variety seeking, accepts life as what it is.	

13.	<b>I do not think it is important for me to work for an organization that ...</b>	Points
a	Treats everybody by the same rules and is committed to going by the book.	
b	Lets me get what I can off the top and gives me the respect that I deserve.	
c	Adapts to its natural environments so the organisational form is determined by its current functions.	
d	Connects to a global network of information and makes decisions based on nature's ordered systems.	
e	Preserves our traditional customs, observes seasonal celebrations, and protects our close-knit community.	
f	Tends to the inner and outer health of its community so they can become fully human.	
g	Thinks strategically and acts competitively to be successful in its niche.	

14.	<b>It is less important that pay and rewards be determined by...</b>	Points
a	What people like me need to keep the wolf away from the door.	
b	Individual contributions based on knowledge, levels of competency, and a degree of importance to the function that people hold.	
c	What you are quick enough to get, since it's everybody for himself or herself in this dog eat dog world.	
d	The collective needs of the entire community so they benefit everyone instead of the select few.	
e	Personal ambition and initiative, successful accomplishments, and willingness to take risks.	
f	What fosters the development of perspectives and programmes that contribute to global survival.	
g	The need to maintain our standard of living, honour seniority and loyal service, and provide for the future.	

15.	<b>My own career priorities are least determined by...</b>	Points
a	Whatever will allow my work group to stay together like a family.	
b	What I have to do to get what I want without having to give in to anybody or conform to any system.	
c	What is just and proper, since my job and profession should reflect my rightful place in society.	
d	The goals I have set for myself in my pursuit of the good things in life.	
e	How I can dedicate myself on behalf of human causes that work to reduce hunger, poverty, racism, and violence.	
f	What I really want to be doing, now, even if it may mean charting a whole new course.	
g	A need to unite with other minds around the planet to work for a new global order.	

16.	<b>I don't share the view that the world is...</b>	Points
a	Under the control of destiny and the directions of a Higher Power.	
b	Like a jungle where the strongest and most cunning must exploit to survive.	
c	An elegant balanced system of interlocking forces.	
d	A magical place alive with spirit beings, where there is safety and security in tribal ways.	
e	A pool of unlimited possibilities and opportunities for those willing to take some risks.	
f	The human habitat in which we share the experiences of living.	
g	A chaotic organism driven by differences and change, but with no guarantees.	

17.	<b>In an ideal world it is less important that ...</b>	Points
a	We feel safe knowing the spirits of our ancestors watch over us.	
b	I have been heroic in conquest and my name will live forever.	
c	Righteousness triumphs over evil and the faithful receive their rewards.	
d	I have achieved material success and enjoyed the very finest this world has to offer.	
e	We all join hands and hearts to prosper equally in peace and togetherness.	
f	Our population matches the available natural resources, as each person learns to do more with less.	
g	All living things cohabit Earth in balance and harmony as part of the universal order.	

18.	<b>Whenever I am criticised, it is seldom for being ...</b>	Points
a	Too rebellious and self centred, a power seeker who likes to rock the boat and gratify senses.	
b	Too ambitious and materialistic, a wheeler-dealer game player who exploits others in an attempt to 'win'.	
c	Too abstract and metaphysical, something of a spiritual wanderer caught up with planetary issues.	
d	Too sensitive and caring with people, a naïve social worker type who is blind to the realities of life.	
e	Too ridged and judgmental, a person who is as such restrictive, and unforgiving.	
f	Too superstitious and mystical, a person plagued by charms, spirits, fortune and spells.	
g	Too aloof and detached, an individual who does his own thing. Lacking self-sacrifice and commitment to others' good.	

19.	<b>When under real stress I rarely ...</b>	Points
a	Rely on my own faith and convictions to see me through adversity.	
b	Get down and fight even harder to survive in the world where "the toughest get the most".	
c	Recognise why it is there and decide whether to live with it or remove it, even if it means a complete life style change.	
d	Shift to another plane of consciousness to transcend the animalistic elements producing it.	
e	Do things to make fortune smile on me and go to a place where I feel safe.	
f	Manoeuvre strategically to influence both people and events to get back in control of the situation.	
g	Seek support and assistance from others to explore and deal with my feelings and fears.	

20.	<b>Few of my deepest beliefs and values ...</b>	Points
a	Come from the customs of my people and our ancestral folkways.	
b	Are what I want them to be and it is no-ones business but my own.	
c	Stand on the firm foundation of my faith and the one true way.	
d	Grow from confidence that we have the power to shape tomorrow.	
e	Emerge from an acceptance of our need for interdependency and sharing.	
f	Reflect very personal views of what will work in a complex and changing world.	
g	Blend my energies with natural forces in the universe beyond time and space.	

## **Appendix B**

### **Example interview open-ended questions**

#### **A. Educational pedagogy**

- a. What do you believe is the purpose of education?
- b. What do you believe should be the outcome of education?
- c. What is the purpose of teaching?
- d. What is the role of teachers in teaching and learning?
- e. What should be included and excluded in teaching?
- f. What activities are most useful for student learning?
- g. What is the ideal role of assessment?
- h. How do you use assessment in your practice?
- i. Should assessment be used to motivate students?
- j. Have you noticed any changes in your teaching over the years?
- k. Why do you think changes have occurred?
- l. How do you think students learn best?
- m. What is the role of students in learning?

#### **B. Stress and conflict resolution**

- a. What do you most enjoy in your teaching?
- b. What is/are the greatest challenge for you in teaching?
- c. How do you deal with these challenges?
- d. What frustrates you the most in your teaching role?
- e. Are you happy in your job?
- f. Do you feel that you are sometimes overloaded with work commitments?
- g. Have you ever thought about leaving teaching?
- h. What are the conflicts between what you believe and what you are able to do?
- i. How do you manage personal autonomy with school conformity?
- j. To what extent do you attempt to satisfy your own/schools concerns in teaching/administrative role?
- k. To what extent do you attempt to satisfy other people's concerns?
- l. Do you or have you felt powerless in any situation at school?
- m. Do you or have you had trouble taking a firm stand, even when you have seen the need for doing so?
- n. Do you stand up for your rights at work, such as the defending of a 'position' in the face of possible conflict?
- o. Do you voice your opinion to keep people from getting away from incorrect statements?

#### **Environmental context and the role of administration**

- a. How does the school environment influence your teaching?
- b. What would you like to change in your school?
- c. Do you consider that you have adequate resources?
- d. What is the role of school administration?
- e. What frustrates you the most in the administrative context?
- f. What are you happy about in the administrative context?
- g. What would you like to change in the school administration?

## **Discipline**

- a. What is the purpose of discipline?
- b. Are you happy with current school disciplinary measures?

## **Accommodating**

- a. Have you ever felt that your ideas and concerns sometimes do not get the attention they deserve?
- b. Have discipline issues that have been addressed by you to administration been dealt with effectively in your opinion?
- c. Have you ever sacrificed your point of view when obeying an order, when you have preferred not to?
- d. Do you consider the effects of your actions on others?

## **Avoiding**

- a. Have you sometimes felt that you are/have hurt other's feelings or stirred up hostilities in any educational issue?
- b. Have you ever felt overwhelmed by an issue or issues?
- c. Have you felt that it is sometimes better to avoid conflict in your work setting?
- d. How do you cope with stress?
- e. When threatened by a situation that you cannot control, what would you do?
- f. Have you or do you find it difficult to work with some people?
- g. Have you ever found yourself placating others that have been upset with you to gain their favours?
- h. Do you believe in enforcing regulations very strictly?

## **Counselling provisions**

- a. What provisions are available for teaching staff and administration that are suffering from stress?
- b. Are you happy with the provisions?
- c. What would you like to see change?

## **Professional development**

- a. What are the current provisions in professional development for teaching staff?
- b. Do you consider these adequate?
- c. What would you like to see changed?

## **Specific administrative questions**

### **Recruitment**

- a. How do you recruit new teaching staff and school administration?
- b. Are you happy with the present system?
- c. If not what would you change?

## Appendix C

Letter of informed consent.

Dear Teacher,

I am a postgraduate student under the direction of Associate Professor Heather Jenkins in the Department of Education, Faculty of Education, Language Studies and Social Work (FELSSW), and Professor Barry Fraser Director of SMEC, Curtin University of Technology, Perth. I am conducting research to study the relationships between teacher beliefs about teaching, learning and teacher practices. You will be required if you decide to participate: to complete a 10-itemed questionnaire, a 22-itemed educators survey and to take part in a series of open-ended interviews. I will collect and transcribe data from the interviews. Your participation will commence at the beginning of the first term of 2007 and conclude at the end of May 2007. Your participation is voluntary and you may withdraw from the study at any time. There will be no experimental aspects to this research.

The results of the research study may be published; however, your name will not be used. You will be referred to with a code name. This code name will not be linked to you in any way and I will not keep a list of names or code names. Only I will have access to these documents. I will keep the questionnaire results and interview transcripts in a locked cabinet and I will destroy them three years after the completion of this research.

There are no foreseeable risks if you agree to participate in this study. Although there may be no direct benefit to you, the possible benefit of your participation in this study is in the improving of the quality of teacher professional development programmes and teacher education programmes for teachers, through understanding the relationship between teacher beliefs and actual practices.

Confidentiality will be maintained to the extent allowed by law.

If you have any questions that concern this research study, please contact myself at Tel: 07-47821214 or email: <mailto:pwbentley@optusnet.com.au>.

Yours sincerely,

Philip Wayne Bentley.

---

**I give my consent to participate in the study. I understand that the researcher will have access to the collected data. This will be kept in a locked cabinet and will be destroyed within three years. I also understand that confidentiality will be maintained to the extent allowed by law.**

Signature.....Date.....

## Appendix D

Wednesday, 31 January 2007

### Participant Information Sheet

My name is Philip Wayne Bentley; I am currently completing a research project for the degree of Doctor of Philosophy – Science and Mathematics Education of the Division of Engineering, Science and Computing at Curtin University of Technology.

I am under the supervision of;  
Supervisor; Professor Darrell Fisher  
Co-Supervisor; Associate Professor Heather Jenkins

### Title of Research Project

Dissonance between teachers' worldviews and their roles and responsibilities as teachers: A case study

### Purpose of Research Programme

I am investigating the following;

- Examining the interplay between teachers' prevailing worldviews and their work environment.
- Ascertaining whether there is a relationship between teacher burnout and prevailing teacher worldviews.
- The completion of a values questionnaire.
- I will ask you a series of open-ended questions regarding such things as your view of education.
- The completion of an educator survey.

### Consent to Participate

Your involvement in the research is entirely voluntary. You have the right to withdraw at any stage without it affecting your rights or my responsibilities. When you have signed the consent form I will assume that you have agreed to participate and allow me to use your data in this research.

### Confidentiality

The information that you provide will be kept separate from your personal details, and I will only have access to this. The interview transcript will not have your name or any other identifying information on it and in adherence to university policy, the interview tapes and transcribed information will be kept in a locked cabinet for five years, before it is destroyed.

### Further information

This research has been reviewed and given approval by Curtin University of Technology Human Research Ethics Committee. If you require any further information regarding this study, please feel free to contact me on

Tel: 07-47821214 or

Email: <mailto:pwbentley@optusnet.com.au>.

**Thank you very much for your involvement in this research. Your participation is greatly appreciated.**

## Appendix E

Wednesday, 31 January 2007

### Letter of Consent School Principal

#### Title of Research Project

Dissonance between teachers' worldviews and their roles and responsibilities as teachers: A case study

This is a research project for the degree of Doctor of Philosophy – Science and Mathematics Education of the Division of Engineering, Science and Computing at Curtin University of Technology.

I.....have read the information on the attached letter. Any questions I have asked have been answered to our/my satisfaction. I agree that my school can participate in this research study but understand that I can change my mind or cease taking part at any time. This also applies to any other schoolteacher or administrator of my school.

I understand that all information provided will be treated as confidential.

I agree for any interviews to be taped/recorded with the permission of participants.

I agree that research gathered for this study may be published provided names or any information that may identify me/us is not used.

I understand that I/us will be given a code and a pseudonym.

Principal name.....

Date.....

Signature.....

Investigator name.....

Date.....

Signature.....

## Appendix F

### ***Chart to interpret the Values Test***

The Values Test: Mapping the currents of change

Written by Don Edward Beck and Christopher C, Cowan (2002)

%	Yellow	Orange	Red	Purple	Blue	Green	Turquoise
99	59	74	41	29	61	50	33
90	51	63	39	28	60	49	32
80	40	51	27	19	45	37	23
70	36	46	23	16	40	33	19
60	33	41	19	13	35	29	16
50	29	37	15	10	31	25	13
40	28	35	13	9	28	23	12
30	24	31	9	6	24	20	8
20	21	26	5	3	19	15	5
10	16	21	0	0	12	10	1
Acceptance						35	
Rejection						5	
10	5	1	19	15	1	5	14
20	8	6	26	22	7	8	19
30	10	9	32	27	11	10	24
40	12	12	38	32	15	12	28
50	13	14	40	34	17	13	30
60	15	17	46	39	21	15	34
70	18	20	51	44	26	18	39
80	20	24	58	50	31	21	44
90	27	33	75	65	43	29	55
99	29	34	81	69	44	31	60

## Appendix G

Wednesday, 31 January 2007

### Letter of Consent

#### Title of Research Project

Dissonance between teachers' worldviews and their roles and responsibilities as teachers: A case study

This is a research project for the degree of Doctor of Philosophy – Science and Mathematics Education of the Division of Engineering, Science and Computing at Curtin University of Technology.

I.....have read the information on the attached letter. Any questions I have asked have been answered to my satisfaction. I agree that I will participate in this research study but understand that I can change my mind or cease taking part at any time.

I understand that all information provided will be treated as confidential.

I agree for any interviews to be taped/recorded.

I agree that research gathered for this study may be published provided names or any information that may identify me is not used.

I understand that I/us will be given a code and a pseudonym.

Participants name.....

Date.....

Signature.....

Investigator name.....

Date.....

Signature.....

## Appendix H

Wednesday, 31 January 2007

### **School Participant Information Sheet**

Dear school Principal,

My name is Philip Wayne Bentley; I am currently completing a research project for the degree of Doctor of Philosophy – Science and Mathematics Education of the Division of Engineering, Science and Computing at Curtin University of Technology.

I am under the supervision of;  
Supervisor; Professor Darrell Fisher  
Co-Supervisor; Associate Professor Heather Jenkins

### **Title of Research Project**

Dissonance between teachers' worldviews and their roles and responsibilities as teachers: A case study

### **Purpose of Research Programme**

I am hoping to investigate the following in your school community;

- Examining the interplay between teachers' and administrators prevailing worldviews and their work environment.
- Ascertaining whether there is a relationship between teacher burnout and prevailing teacher and administrators' worldviews.
- The completion of a values questionnaire.
- I will ask some of your teachers and administrators a series of open-ended questions regarding such things as their view of education.
- The completion of an educator survey.

### **Consent to Participate**

Your schools' involvement in the research is entirely voluntary. Your school community has the right to withdraw at any stage without it affecting its or my responsibilities. When you have signed the consent form I will assume that you have agreed to allow your school community to participate and allow me to use collected data in this research.

### **Confidentiality**

The information that your schoolteachers and administrators provide will be kept separate from their personal details, and I will only have access to these. The interview transcripts will not have any names or any other identifying information on them and in adherence to university policy, the interview tapes and transcribed information will be kept in a locked cabinet for five years, before they are destroyed.

### **Further information**

This research has been reviewed and given approval by Curtin University of Technology Human Research Ethics Committee. If you require any further information regarding this study, please feel free to contact me on Tel; 07-47821214 or Email <mailto:pwbentley@optusnet.com.au>.

Thank you very much for your involvement in this research. Your schools participation is greatly appreciated.

## Appendix I

*Summary of findings to demonstrate how the case studies address each of the research questions, as expressed on pages 56-58*

<b>Administrator participant Elizabeth</b>				
<b>Sources of dissonance: Professional autonomy</b>	<b>Sources of dissonance: School conformity</b>	<b>Management of situations of crisis and conflict</b>	<b>Relationship between Educational issues and worldviews</b>	<b>Dominant worldviews</b>
<p>When asked if she believed that the provisions for professional development were adequate for the school and administrative staff, she responded by saying that she believed that the provisions needed to be extended to include all subject areas of the school as only the core subject areas had sufficient provision.</p> <p>Individuals such as Elizabeth resist power being exercised over them and if felt thwarted can produce negative emotions such as anger and feelings of helplessness, which can lead to the occurrence of stress.</p> <p>Elizabeth pursued more self-autonomy than most other teachers at the school and was also shown to be capable and able to use competitive elements to get ahead.</p>	<p>For Elizabeth, lack of time was perceived to provide the greatest challenge for her especially time away from her students.</p> <p>In respect to change Elizabeth believed that the rate of changes that were being implemented from outside agencies had steadily increased. These changes she believed concerned administrative roles.</p> <p>Elizabeth believed that the roles of administration were changing in an increasingly intensifying way, with continuing emphasis being placed on compliance and auditing. Such changes she thought were the most frustrating aspect for to except. She also expressed concern for the lack of provision of time and suitable resources to implement them. She responded by indicating that she was happy and that she did sometimes feel overworked. However, although she admitted that she believed that she was being overworked, she reconciled the overworking, as being an inevitable part of her job.</p> <p>When asked how she managed personal autonomy with school conformity. She said that she always had difficulty complying with her employing introducing</p>	<p>When asked how she managed stress Elizabeth responded by saying that in times of stress, she would try to relax and if required would seek assistance. She would often speak over concerns with her husband after school.</p> <p>Elizabeth was another teacher at the school that seemed to prefer the company of other members of staff that had similar views and beliefs as she did. She was observed on many occasions to sit with the same teachers' in the preparation room, usually in deep conversation.</p> <p>Asked whether she thought that the school provided for adequate support for individuals who might have been suffering from stress Elizabeth responded positively.</p> <p>Elizabeth's responses suggested that she had a good sense of self .</p> <p>Other traits exhibited by Elizabeth were from the orange worldview in which her perceptions of self worth came from outside evaluations and she was found to be able to easily condemn weaknesses in others.</p>	<p>In respect to beliefs regarding student discipline Elizabeth firmly believed that teachers should be the main authorities of controlling students in respect to their behaviour management. This is indicative once again of the blue way of thinking.</p> <p>Elizabeth firmly believed that all teachers should work together by strictly adhering to the policies of the school. She disliked those teachers that deviated from school protocol.</p> <p>Elizabeth's pedagogical beliefs and values regarding education were clearly orientated towards the blue way of thinking. Where the blue values meme is sacrifice-self orientated. In this level, the world is seen as an orderly place where there is meaning and purpose under the control of authority. This is why in this level respect for authority, loyalty, and rules are valued. A life style based on "one true way" and "going by the book" in dealing with problems or issues in life is very characteristic of this values meme.</p> <p>For individuals like Elizabeth whose dominant values memes were of blue and orange. An often-negative consequence associated with the blue and orange ways of thinking involves</p>	<p>BLUE (DQ, absolutist) and Orange (ER, achievist)</p> <p>Blue was Elizabeth's dominant values level. The blue values meme is sacrifice-self orientated and it emerges in conditions of chaos created by conflicts, deprivation, and suffering with a desire to bring discipline, order through religion, culture, or nationalism. People who value the blue values meme tend to have a future time orientation; they believe that one needs to sacrifice now by obeying the rules and authority to get rewards later. In this level, the world is seen as an orderly place where here is meaning and purpose under the control of a powerful authority. This is why in this level respect for authority, loyalty, patriotism, and rules are valued. A life style based on "one true way" and "going by the book" in dealing with problems or issues in life is very characteristic of this values meme. Therefore, people are expected to accept the judgment of the authority (politicians, parents, and religious leaders) and play their roles to maintain a healthy society. Strict religious communities, highly structured societies, or highly bureaucratic organizations are places where this values meme is</p>

	educational initiatives that she was opposed to.		such individuals making very judgemental appraisals of others, especially those that are perceived by them to be at odds from the accepted norm. Such as with Elizabeth believing that there were too many teachers that were employed at her school that were either waiting for retirement or were perceived by her as being too negative. Such teachers she believed were not working to the best of their abilities and as such the students and the school were both suffering as a consequence.	common.  The orange value meme (ER, achievist) is express self-orientated and in this level the world is seen as a place full of opportunities and resources. Capitalist values, technological advancement, economic power, and competition are valued within this level. In this level priority is given to self-advancement rather than the community, bureaucracy and heavily structured systems are not valued. People who value this value meme have an entrepreneur perspective in life and for them manoeuvring within the rules of an organization or a system to get ahead and testing available options in life to reach a goal are common attitudes.
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### Administrator participant Michael

<b>Sources of dissonance: Professional autonomy</b>	<b>Sources of dissonance: School conformity</b>	<b>Management of situations of crisis and conflict</b>	<b>Relationship between Educational issues and worldviews</b>	<b>Dominant worldviews</b>
<p>Michael liked to do things his way when ever possible. He liked to be on his own when at work and seemed to keep a distance from other teachers at his employing school.</p> <p>Individuals such as Michael resist power being exercised over them and if felt thwarted can produce negative emotions such as anger and feelings of helplessness, which can lead to the occurrence of stress. He openly admitted that he disliked confrontation with teachers who had opposing views to his own. He believed that as the 'boss' he had the say on how his school was operated.</p>	<p>Michael believed that that the rate of changes that were being implemented from outside agencies had steadily increased. These changes he believed concerned administrative roles.</p> <p>Michael believed that the roles of administration were changing in an increasingly intensifying way, with continuing emphasis being placed on compliance and accountability. Such changes he thought were the most frustrating aspect for him to except.</p> <p>For Michael, he believed that working with and conversing with adults was his greatest challenge. He freely admitted that</p>	<p>He had indicated during conversations that he had difficulty in focusing on others rather than himself.</p> <p>In respect to collegiality Michael was another teacher at the school that seemed to prefer the company of other members of staff that had similar views and beliefs as he did especially in times of possible conflict. However, he found this difficult to achieve.</p> <p>When asked how he managed stress Michael responded by saying that in times of stress, he would try to relax by either walking or playing golf, and if required would seek assistance. He would often speak over concerns with his</p>	<p>Michael responded when being interviewed that he believed that the purpose of education was to provide a mutual benefit between individuals and society. When asked what he believed to be the role of teachers in the context of teaching and learning Michael responded by indicating that he thought that teachers should be like instructors and impart new knowledge to their students.</p> <p>He also believed that this process of instruction should be managed through discipline, which is conversant with the blue way of thinking.</p> <p>Michael thought students learnt best in</p>	<p>BLUE (DQ, absolutist) and Orange (ER, achievist)</p> <p>Blue was Michael's dominant values level. The blue values meme is sacrifice-self orientated and it emerges in conditions of chaos created by conflicts, deprivation, and suffering with a desire to bring discipline, order through religion, culture, or nationalism. People who value the blue values meme tend to have a future time orientation; they believe that one needs to sacrifice now by obeying the rules and authority to get rewards later. In this level, the world is seen as an orderly place where here is meaning and purpose under the control of a</p>

	<p>this was due in part to the fact that he believed that he was too shy and introverted.</p>	<p>wife after school. In very stressful times Michael would use prayer.</p> <p>Michael often internalised possible perceived threats, problems or issues that were stressful, and endeavoured to put them in perspective by reminding himself of what was in fact important.</p>	<p>an atmosphere of respect, self-control and fair treatment of others. Again both statements fit the profile for the blue way of thinking.</p> <p>He believed that he was very privileged in being able to work with children. He placed high priority on students achieving high academic grades. In the orange way of thinking achievement, advancement and change should be sought out and materialistic gain should be sought.</p> <p>Michael's pedagogical beliefs and values regarding education were clearly orientated towards the blue way of thinking. Where the blue values meme is sacrifice-self orientated. In this level, the world is seen as an orderly place where there is meaning and purpose under the control of authority. This is why in this level respect for authority, loyalty, and rules are valued. A life style based on "one true way" and "going by the book" in dealing with problems or issues in life is very characteristic of this values meme.</p>	<p>powerful authority. This is why in this level respect for authority, loyalty, patriotism, and rules are valued. A life style based on "one true way" and "going by the book" in dealing with problems or issues in life is very characteristic of this values meme. Therefore, people are expected to accept the judgment of the authority (politicians, parents, and religious leaders) and play their roles to maintain a healthy society. Strict religious communities, highly structured societies, or highly bureaucratic organizations are places where this values meme is common.</p> <p>The orange value meme (ER, achievist) is express self-orientated and in this level the world is seen as a place full of opportunities and resources. Capitalist values, technological advancement, economic power, and competition are valued within this level.</p> <p>Ego involvements in individuals like Michael who think in the orange value system are shown to be high.</p> <p>In this level priority is given to self-advancement rather than the community, bureaucracy and heavily structured systems are not valued.</p> <p>People who value this value meme have an entrepreneur perspective in life and for them manoeuvring within the rules of an organization or a system to get ahead and testing available options in life to reach a goal are common attitudes.</p>
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<b>Teacher participant Mark</b>				
<b>Sources of dissonance: Professional autonomy</b>	<b>Sources of dissonance: School conformity</b>	<b>Management of a crisis or stress</b>	<b>Relationship between Educational issues and worldviews</b>	<b>Dominant worldviews</b>
<p>For Mark, he believed that unmotivated students were the most frustrating aspect of teaching and the management of student behaviour.</p> <p>Mark firmly believed that the focus of responsibility should be placed on individual students to change their own behaviour and classroom teachers should be able to assert their own authority. However, he often felt that teachers at his employing school were not able to do this because of the imposed views of senior management. He also believed that teachers were not fully supported as well. He indicated that he found this aspect to be very stressful</p>	<p>Mark indicated that in general he was happy in his job. However, he also responded by saying that he would be happier if the senior management would listen to his concerns in respect to discipline issues. Which he said would make him feel happier in his teaching position</p>	<p>When Mark was asked how he managed stress he responded by saying that he coped with stress by internalising it.</p> <p>Sometimes he would discuss stressful episodes with others, such as with his wife or those teachers whom he felt comfortable with.</p> <p>Mark also stated that if he felt threatened by a stressful situation that he could not control that he would seek assistance.</p> <p>He also internalised problems very much like Samantha and tried to rationalise things in an attempt to reduce such stress.</p> <p>Mark would also avoid any possible conflict with others if possible.</p> <p>From his reposes Mark had a good sense of self.</p>	<p>Mark saw the purpose of education as being the process where individuals are developed in all their facets.</p> <p>He believed in a holistic education that should provide society with well-educated individuals this statement fits well with the turquoise way of thinking.</p> <p>Although Mark, saw change as inevitable in all aspects of life, which is a dimension expressed in the yellow and turquoise levels of thinking, he found it difficult to accept change readily.</p> <p>Marks pedagogical beliefs and values regarding education were clearly orientated towards the turquoise way of thinking. From an educational perspective Mark liked to actively pose problems in different ways to his students to get them to seek as many answers as they could. He acted more as a consultant during the lesson observations rather than an evaluator or judge.</p>	<p>TURQUOISE (HU, holistic) and Purple (BO, animistic) Both are concerned with the theme of community.</p> <p>Purple and turquoise values memes are both sacrifice-self orientated. Both are concerned with the theme of community.</p> <p>'Purple' people find safety within communities that they live in, where others look out for each other. Marriage and family relations are valued highly and people in this system may as a consequence be committed to home and extended family relations this was evident in the fact that Mark had always lived and worked in the same township. The value meme has certain belief characteristics: that one should observe rites, rituals, seasonal cycles and tribal customs, sacred objects, places, memories and events should be preserved, allegiance should be shown to elders and customs, that the world is seen as being composed of good and bad, and rules are black and white.</p> <p>Turquoise was Marks's dominant values level.</p> <p>'Turquoise' people value all life as a whole. Individuals who think in this level tend to be conceptual, value learning and search for meaning and purpose in their life. This search can sometimes reach spiritual levels. People who value this belief system also have a holistic perspective of problems. Persons thinking in this value meme exist in relationship to collective order, not</p>

				just the self. In turquoise one learns not only in observation and participation but also through the actual experience of simply being.
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### Teacher participant Samantha

Sources of dissonance: Professional autonomy	Sources of dissonance: School conformity	Management of a crisis or stress	Relationship between Educational issues and worldviews	Dominant worldviews
<p>Samantha felt that she was losing capability in bringing about desired outcomes of student engagement and learning, especially with those students who she perceived to be difficult and unmotivated.</p> <p>Individuals such as Samantha resist power being exercised over them and if felt thwarted can produce negative emotions such as anger and feelings of helplessness, which can lead to the occurrence of stress.</p> <p>She expressed concern, that her present employing school allowed students to run the school. Teachers, she said were undervalued by students and by the senior management.</p> <p>Samantha thought that there was not enough support for teachers at the school; she felt that discipline was a major area of conflict in this concern.</p>	<p>For Samantha, change was seen as the most frustrating aspect of teaching. Especially those changes that are imposed on teachers by school management and change that had no perceived rationale.</p> <p>She also expressed concern for the lack of time given for teachers to effect change.</p> <p>Samantha's main reasoning for not being happy in her present position was concerned with issues regarding self-efficacy and conflict with senior management in that they did not allow her to work the way she wanted to.</p> <p>Another area of conflict for Samantha like John was with her perception of the role of the school administrative staff. She believed that they did not adequately consult and allocate adequate resources and personnel.</p>	<p>When asked how she managed stress Samantha responded by saying that in times of stress, she often meditated and sometimes listened to music. She felt that music helped her to feel better with her life. She also internalised problems and tried to put things into perspective by trying to remind herself what was important.</p> <p>If threatened in a situation that she felt that she could not control Samantha said that she would seek assistance.</p> <p>Samantha perceived external factors were causing her to experience problems in her teaching and for her to be experiencing stress; her attitude of blaming herself and not being sure how to bring change in her environment seemed to be where she seemed to be having most difficulty.</p>	<p>Samantha, saw a school as being a place of academic learning and not a place for socialising. However, she did make a point of saying that this judgment was based in the context of her own values and that the values of the school in general were not necessary wrong.</p> <p>When asked what she believed to be the role of teachers in the context of teaching and learning she replied by saying that teachers should facilitate learning amongst students. Teachers should also be able to inspire. This statement fits well with the green level of thinking.</p> <p>Samantha believed that students should be taught traditional practical skills. These concerns with practical and traditional skills are compliant with the purple value meme of thinking.</p> <p>In respect to educating and training these green individuals are very much involved in exploring each other's feelings. Group activities are sought and encouraged, as is experiential learning.</p>	<p>GREEN (FS, relativistic) and Turquoise (HU, holistic)</p> <p>Green and turquoise values memes are both sacrifice-self orientated. Both are concerned with the theme of community.</p> <p>'Green' thinking people show and have concern for human feelings, needs, and with relationships. Relationships are given priority in this level and the world is seen as a habitat where peace and prosperity must be maintained. Human rights, equality and well being for all are respected in the values meme. Individuals that think in this green level feel that they must be successful in interpersonal relationships they need to feel and be accepted within the group community.</p> <p>They need to feel that relationships with others are authentic, congruent, and honest and that trust exists for self and others. When this sense of belonging or trust is not perceived to exist for them, then the individual will tend to feel an increase in emotional stress. Individuals can be either extroverted or introverted. A negative aspect of green is that an individual may be susceptible to groupthink. In that the pressures to be supportive of</p>

				collective decisions and actions may be extreme.
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<b>Teacher participant Anne</b>				
<b>Sources of dissonance: Professional autonomy</b>	<b>Sources of dissonance: School conformity</b>	<b>Management of a crisis or stress</b>	<b>Relationship between Educational issues and worldviews</b>	<b>Dominant worldviews</b>
<p>Anne, the management of student behaviour and dealing with students with special needs were perceived as being the most challenging and frustrating aspects of teaching. She believed that teachers should have been provided with more autonomy.</p> <p>Anne believed that the school did not have enough provision for teachers' ongoing professional development. She believed that what was offered was in the interests of the school but not necessarily for her needs.</p> <p>She much like Samantha also expressed concern with change that was imposed on teachers from the schools administrative staff that had been sanctioned without prior consultation with the teaching staff.</p> <p>Individuals such as Elizabeth resist power being exercised over them and if felt thwarted can produce negative emotions such as anger and feelings of helplessness, which can lead to the occurrence of stress.</p> <p>Anne much like Elizabeth and Samantha resisted power being exercised over her. During interview she stated that if she felt thwarted it produced negative emotions in her such as anger and feelings of helplessness. These types of emotion can lead to the occurrence</p>	<p>Anne much like Samantha also expressed concern with change that was imposed on teachers from the schools administrative staff that had been sanctioned without prior consultation with the teaching staff.</p> <p>Anne was asked if she was happy in her present position. She responded by saying that she was not and had decided that she would consider a different career altogether. Such as a career in speech therapy where she believed she would have more control in her work. This is a typical trait often found in individuals who think in the red value meme. During interview she readily expressed concern in that she felt that her schools administrative staff did not cater to the needs of teachers. Such as For the management of student behaviour and dealing with students with special needs were perceived as being the most challenging and frustrating aspects of teaching. She strongly believed that her employing school did not adequately support her in this endeavour.</p>	<p>Anne indicated that she coped with stress with difficulty. She internalised problems much like Samantha and Mark, and tried to rationalise possible issues in an attempt to reduce such stress.</p> <p>Anne would avoid conflict with others if at all possible. She believed that individuals could come to some sort of understanding on how to deal with an issue.</p> <p>When encountering a possible conflict Anne would try to separate herself from the problem. She believed that talking with others often helped in reducing conflict. If faced with a perception of stress Anne would seek help.</p> <p>She believed that most instances of stress that she had encountered had invariably been the result of someone else's actions. However, unlike Samantha, Anne was much more vocal in her account of her perceived conflicts, which she perceived she had with her employing school.</p>	<p>Anne's pedagogical beliefs and values regarding education were clearly orientated towards the turquoise and red ways of thinking.</p> <p>Anne responded when being interviewed that she saw the purpose of education as being the process where individuals are developed in subject specific facets.</p> <p>When asked what she believed to be the role of teachers in the context of teaching and learning Anne responded by indicating that teachers should act as facilitators over the learning process in schools. However, she also expressed a belief that students had a role or should have a role in their learning. She liked hands on activities and students following her lead. She believed in exciting her students and allowing them to be independent and strong individuals.</p> <p>The statement above is compliant with the red worldview way of thinking in that allowances are made: for self-direction, expression and independence in learning opportunities that challenge and test existing skill sets.</p> <p>Teachers are seen to be more like coaches than a lecturer and as such expect their students to assume more responsibility for their own learning where</p>	<p>PURPLE (BO, animistic) and Red (CU, egocentric)</p> <p>Purple was Anne's dominant values level.</p> <p>In the purple values meme level the world is seen as a mystical and sometimes threatening place. 'Purple' people find safety and solace within communities that they live in, where others look out for each other. Spiritual beliefs, traditions, and rituals are valued. In the present world, people in this values meme live in small townships, ethnic neighbourhoods, or tribal communities. Marriage and family relations are valued highly and people in this system may as a consequence be committed to home and extended family relations this was evident in the fact that Anne often visited her parents and siblings who lived only a short distance away from where Anne worked and lived.</p> <p>The red values meme is an express-self orientated values meme and an egocentric attitude is valued at this level. It emerges from societies in which purple values meme is dominant and where there is relative safety, allowing people to express themselves and be creative. The value meme has certain belief characteristics: the world is seen like a jungle that is full of predators, others should be dominated especially aggressive</p>

of stress.			passive learning is not encouraged.	people, seeks immediate gratification, expects respect and attention, must defend reputation to avoid shame, should please self free from domination from others and the world is seen as those that have and those that have not.
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## Appendix J

### Samantha's summary

<b>Summary of case studies</b>	
<b>Samantha</b>	
<b>Portrait accepted value memes summary</b>	<p>Samantha scored <b>highly</b> in both the <b>green (FS, relativistic) and turquoise (HU, holistic) values memes</b>. <b>Green and turquoise</b> values memes are both <b>sacrifice-self orientated</b>. Both are <b>concerned with the theme of community</b>. According to the values test instrument, green was observed as being Samantha's prevailing values level. A negative aspect of green is that an individual may be <b>susceptible to groupthink</b>. In that the pressures to be supportive of collective decisions and actions may be extreme. The need of individuals to feel accepted may overwhelm the person's willingness to disagree with a decision that they are not necessary happy with. However, green <b>discussions can often dissolve conflict</b>, build consensus, and sometimes enhance feelings of inclusion in a group setting. The green way of thinking is low in dogmatism in that many beliefs can be accepted. 'Turquoise' level people also have a <b>holistic view of problems</b>. In the turquoise values meme level all life is valued as a whole. People in this level tend to be <b>conceptual, value learning and search for meaning</b> and purpose in existence. The level of thinking is generally globalistic, extending across boundaries. The turquoise level of thinking is the first value meme that has evolved that is cross-paradigmatic. In other words people in level are able to understand <b>and tolerate others</b> that think in different levels. They <b>see their lives as being rather insignificant</b> in the overall scheme of global existence. Samantha also scored <b>relatively higher</b> than the general population in the <b>purple worldview (BO, animistic) values meme</b> way of thinking. The world is seen as a mystical and sometimes threatening place. People in this value system <b>find safety in communities</b> that they live in, where people look out for each other. Individuals are often detailed orientated, and have a strong kinaesthetic or emotional interpretation of the world.</p>
<b>Collegiality</b>	<p>In respect to collegiality Samantha was unable or <b>not committed</b> to the daily habit of <b>communicating with her colleagues</b> that often resulted in small interpersonal and professional differences.</p>
<b>Pedagogical beliefs and values regarding education, conflict, change and stress management</b>	<p>When asked how she <b>managed stress</b> Samantha responded by saying that in times of stress, she <b>often meditated and sometimes listened to music</b>. She felt that music helped her to feel better with her life. She also internalised problems and tried to <b>put things into perspective</b> by trying to remind herself what was important. If threatened in a situation that she felt that she could not control Samantha said that she would <b>seek assistance</b>. For Samantha, <b>change was seen as the most frustrating aspect of teaching</b>. Especially those <b>changes that are imposed on teachers and change that has no perceived rationale</b>. She also expressed <b>concern for the lack of time</b> given for teachers to effect change.</p> <p>Samantha's main reasoning for <b>not being happy</b> in her present position was <b>concerned with issues regarding self-efficacy and conflict with senior management</b>. Samantha felt that she was <b>losing capability</b> in bringing about desired outcomes of <b>student engagement</b> and learning, especially with those students who she perceived to be <b>difficult and unmotivated</b>.</p> <p>Samantha, saw a school as being a place of academic learning. However, she did make a point of saying that this judgment was based in the context of her own values and that the values of the school in general were not necessary wrong. She expressed concern, that her present employing <b>school allowed students to run the school. Teachers, she said were undervalued</b> by students and by the senior management. Samantha thought that there was <b>not enough support for teachers</b> at the school; she felt that <b>discipline was a major area of conflict</b> in this concern.</p>

*John's summary*

<b>John</b>	
<b>Portrait accepted value memes summary</b>	<p>John scored <b>highly in both the turquoise (HU, holistic) and yellow worldview (GT, Systemic) values memes.</b></p> <p>Both are concerned with the <b>theme of community.</b> Turquoise was John's dominant values level. 'Turquoise' people value all life as a whole. Individuals who think in this level <b>tend to be conceptual, value learning and search for meaning and purpose in their life.</b> This search can sometimes reach spiritual levels. The level of thinking in turquoise people is also generally globalistic, extending across boundaries. People who value this belief system also have a <b>holistic perspective of problems.</b> Persons thinking in this value meme <b>exist in relationship</b> to collective order, not just the self. In turquoise one learns not only in observation and participation but also through the actual experience of simply being.</p> <p>John also scored relatively higher than the general population in the <b>yellow worldview (GT, Systemic) values meme</b> but not as high as the turquoise value memes. This level is also <b>sacrifice-self in orientation.</b> John accepted this particular worldview because he felt that <b>everyone was entitled to have their own worldview and their own point of view</b> this perspective was similar to that expressed by Samantha.</p> <p>John also scored relatively higher than the general population in the in the purple values meme level where the world is seen as a mystical and sometimes threatening place. 'Purple' people <b>find safety within communities</b> that they live in, where others look out for each other. Spiritual beliefs, traditions, and rituals are valued. In the present world, people in this values meme live in small townships, ethnic neighbourhoods, or tribal communities. <b>Marriage and family relations are valued highly</b> and people in this system may as a consequence be committed to home and extended family relations</p>
<b>Collegiality</b>	<p>In respect to collegiality John spent the <b>least amount of time</b> in the school <b>speaking and socialising</b> with other members of the school staff. He was observed too frequently, to <b>disappear whenever he had the opportunity</b> to do so, such as at the conclusions of staff meetings or morning briefings. He really did seem to like keeping his own company. Often spending much of his time when at the school in his art classroom <b>listening to music.</b></p>
<b>Pedagogical beliefs and values regarding education, conflict, change and stress management</b>	<p>John saw the purpose of education as a means of <b>helping people to discover what their innate abilities were and nurturing these abilities to fruition.</b> He also saw education as a means of preparing young people for a <b>meaningful role in society.</b> John also expressed the notion that he thought education and in particular that schools should have a role in <b>socialising students</b> into society.</p> <p>For John, his greatest <b>frustration in teaching was concerned with students that had no interest in learning.</b> Another area of conflict for John was with his perception of the role of the <b>school administrative staff.</b> He believed that they <b>did not adequately consult and allocate adequate resources and personnel.</b> John also believed that the school administration were to blame for a <b>poor delivery of the curriculum</b> which he considered to be inadequate. He also believed that too much time and effort was spent on ensuring the <b>wellbeing of students as opposed to the wellbeing of the teachers</b> of the school.</p> <p>When John was asked whether he was happy in his job. He responded by saying that he was at times. He did elaborate further by saying that he had <b>seriously considered leaving</b> the school on many occasions. Due to perceived frustrations in and outside of the classroom. <b>Survival for his family was an important consideration</b> for John in not leaving the teaching profession. He also asserted that whenever the thought crossed his mind he also thought about <b>losing contact with students.</b></p> <p>When John was asked how he <b>managed stress</b> he responded by saying that he coped with stress <b>by internalising</b> it. Sometimes he would <b>discuss stressful episodes with others,</b> such as with his wife or those teachers whom he felt comfortable with. John usually <b>coped with stress by walking and getting away from the particular stressful situation</b> or context. He also liked to <b>listen to music to take his mind off stressful episodes.</b> John also stated that if he felt threatened by a stressful situation that he could not control that he would seek assistance.</p>

**Table 10 Mark's summary**

<b>Mark</b>	
<b>Portrait accepted value memes summary</b>	<p>Mark scored <b>highly</b> in both the <b>purple (BO, animistic) and turquoise (HU, holistic values memes)</b>. <b>Purple and turquoise</b> values memes are both sacrifice-self orientated. Both are concerned with the theme of community. <b>Turquoise</b> was Mark's dominant values level. 'Turquoise' people value all life as a whole. Individuals who think in this level tend to be <b>conceptual, value learning and search for meaning</b> and purpose in their life. Persons thinking in this value meme exist in relationship to collective order, not just the self. In turquoise one learns not only in observation and participation but also through the actual experience of simply being.</p> <p>In the <b>purple</b> values meme level the world is seen as a mystical and sometimes threatening place. 'Purple' people <b>find safety within communities</b> that they live in, where others look out for each other. Spiritual beliefs, traditions, and rituals are valued. In the present world, people in this values meme live in small townships, ethnic neighbourhoods, or tribal communities. <b>Marriage and family relations are valued highly</b> and people in this system may as a consequence be <b>committed to home and extended family</b> relations this was evident in the fact that Mark had always lived and worked in the same township. The value meme has certain belief characteristics: that one should observe rites, rituals, seasonal cycles and tribal customs, sacred objects, places, memories and events should be preserved, allegiance should be shown to elders and customs, that the <b>world is seen as being composed of good and bad</b>, and rules are black and white.</p> <p>Mark also scored <b>slightly higher</b> than the general population in the <b>yellow (GT, systemic) and green (FS, relativistic) values memes</b>. The yellow values meme has an express self-orientation. People whom value this values meme view the world as an intriguing, complex, and interactive system, which is under threat from humans' limited vision. Acceptance and harmony are peripheral to happiness in the sense that what others think is interesting but not critical. In this values system, people tend to have a <b>strong sense of independence</b>, individual competence, and self worth. 'Yellow' people are not driven by fear, compulsiveness, or loss of status. They may express discomfort at over-simplified models and failure to recognise the true complexity of issues. Systemic long-range thinking, questioning, and accepting differences are common attitudes among people who value this value system. 'Green' thinking people show and have concern for human feelings, needs, and with relationships. <b>Relationships are given priority</b> in this level and the world is seen as a habitat where peace and prosperity must be maintained. Human rights, equality and well being for all are respected in the values meme. Individuals that think in this green level feel that they must be successful in interpersonal relationships they need to feel and be accepted within the group community. They <b>need to feel that relationships with others are authentic</b>, congruent, and honest and that trust exists for self and others. When this sense of belonging or trust is not perceived to exist for them, then the individual will tend to feel an increase in emotional stress. Individuals can be either extroverted or introverted. However, in either case they will tend to be very judgmental in their way of thinking, sometimes to such an extent that they often endeavour to convert others to their way of thinking. <b>Communication</b> in this value meme also becomes <b>highly valued</b>. In respect to educating and training these green individuals are very much involved in exploring each other's feelings. Group activities are sought and encouraged, as is experiential learning.</p>
<b>Collegiality</b>	<p>In respect to collegiality Mark was also a teacher that seemed to <b>prefer his own company</b> to that of other members of staff. He was observed on many occasions to <b>sit alone</b> in the teachers' preparation room often sitting at his desk and preparing work for his students. Mark too like Samantha was observed to be too frequently absent when others were actively engaged in conversation. He <b>did not seem to actively pursue or speak with many of his colleagues</b>. Other people especially team orientated organizations such as schools may perceive them as being dysfunctional, resulting from the fact that they don't generally like to participate in groups, games and have a preference to work alone.</p>
<b>Pedagogical beliefs and values regarding education, conflict, change and stress management</b>	<p>Mark saw the purpose of education as being the process where <b>individuals are developed in all their facets</b>. He believed in a <b>holistic education</b> that should provide society with well-educated individuals.</p> <p>For Mark, he believed that <b>unmotivated students</b> were the most <b>frustrating aspect of teaching</b>. He indicated that he found this aspect to be <b>very stressful</b> for him and thought that too much emphasis was placed on individual teachers to rectify the concern. Mark firmly believed that the focus of <b>responsibility should be placed on individual students to change their own behaviour</b>.</p> <p>Mark indicated that <b>in general he was happy</b> in his job. However, he also responded by saying that he would be happier if the <b>senior management</b> would listen to his <b>concerns in respect to discipline</b>. Which he said would make him</p>

	<p>feel happier in his teaching position.</p> <p>Mark indicated that he <b>coped with stress</b> by withdrawing and becoming <b>quiet</b>. He <b>believed that no one really cared</b> or could help him anyway so he <b>could not see the point of seeking assistance</b>. He also <b>internalised problems</b> very much like Samantha and tried to <b>rationalise things</b> in an attempt to <b>reduce such stress</b>. Mark would also <b>avoid any possible conflict</b> with others. He often blamed external factors as possible causes of his stress.</p>
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### Anne's summary

<b>Anne</b>	
<b>Portrait accepted value memes summary</b>	<p>Anne scored <b>highly</b> in both the <b>purple (BO, animistic) red (CU, egocentric) and orange (ER, achievist) values memes</b>. <b>Purple</b> was Anne's dominant values level.</p> <p>In the purple values meme level the world is seen as a mystical and sometimes threatening place. 'Purple' <b>people find safety</b> and solace <b>within communities</b> that they live in, where others look out for each other. Spiritual beliefs, traditions, and rituals are valued. In the present world, people in this values meme live in small townships, ethnic neighbourhoods, or tribal communities. <b>Marriage and family relations are valued highly</b> and people in this system <b>may as a consequence be committed to home and extended family</b> relations this was evident in the fact that Anne often visited her parents and siblings who lived only a short distance away from where Anne worked and lived. The <b>red values meme</b> is an <b>express-self orientated</b> values meme and an <b>egocentric attitude is valued at this level</b>. It emerges from societies in which purple values meme is dominant and where there is relative safety, allowing people to express themselves and be creative. The <b>world is seen to be like a jungle</b> where the strong dominate and the weak serve, therefore power is desired. People who value this value meme <b>tend to assert for dominance</b>. Red values meme has a present time orientation. What matters now is important and the future is not real. The value meme has certain belief characteristics: the world is seen like a jungle that is full of predators, others should be dominated especially aggressive people, seeks immediate gratification, <b>expects respect and attention, must defend reputation</b> to avoid shame, should please self free from domination from others and the world is seen as those that have and those that have not.</p> <p>The <b>orange</b> value meme (ER, achievist) is express self-orientated and in this level the world is seen as a place full of opportunities and resources. Capitalist values, technological advancement, economic power, and competition are valued within this level. In this level priority is given to <b>self-advancement</b> rather than the community, bureaucracy and heavily structured systems are not valued. People who value this value meme have an <b>entrepreneur perspective in life and for them manoeuvring within the rules of an organization or a system to get ahead and testing available options in life to reach a goal</b> are common attitudes. The value meme has certain belief characteristics: that <b>independence and autonomy should be sought</b>, the truth should be sought on an individual basis, thoughts should be reflective on and questioning an individual's values and beliefs, objective methods should be used to obtain and communicate knowledge, achievement, advancement and change should be sought out and <b>materialistic gain should be sought</b>.</p>
<b>Collegiality</b>	<p>Anne was a teacher that seemed to <b>prefer the company of other members of staff that had similar views and beliefs as she did</b>. She was observed on many occasions to <b>sit with the same teachers</b> in the preparation room, usually in deep conversation. Many of the overheard conversations would concern problematic students at the school.</p>
<b>Pedagogical beliefs and values regarding education, conflict, change and stress management</b>	<p>Anne responded when being interviewed that she saw the purpose of education as being the process where <b>individuals are developed in subject specific facets</b>.</p> <p>For Anne, the <b>management of student behaviour</b> and dealing with students with <b>special needs</b> were perceived as being the <b>most challenging and frustrating aspects</b> of teaching. She much like Samantha also expressed concern with <b>change that was imposed on teachers</b> from the <b>schools administrative</b> staff that had been sanctioned without prior <b>consultation</b> with the teaching staff. However, unlike Samantha Anne was much <b>more vocal in</b> her account of her perceived conflicts, which she perceived she had with her employing school. Anne was asked if she was happy in her present position. She responded by saying that she was not and had decided that she would <b>consider a different career altogether</b>.</p> <p>Anne indicated that she <b>coped with stress with difficulty</b>. She <b>internalised problems</b> much like Samantha and Mark, and tried to rationalise possible issues in an attempt to reduce such stress. Anne would <b>avoid conflict</b> with others if at all possible. She believed that individuals could come to some sort of</p>

	<p>understanding on how to deal with an issue. When encountering a possible conflict Anne would try to separate herself from the problem. She believed that <b>talking with others often helped in reducing conflict</b>. If faced with a perception of stress <b>Anne would seek help</b>. She believed that most instances of stress that she had encountered had invariably been the result of someone else's actions. Anne believed that the <b>school did not have enough provision</b> for teachers that might have been suffering from stress.</p>
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*Elizabeth's summary*

<b>Elizabeth</b>	
<b>Portrait accepted value memes summary</b>	<p>According to the values test Elizabeth <b>scored highly</b> in both the <b>blue (DQ, absolutist) and orange (ER, achievist)</b> values memes.</p> <p><b>Blue</b> was Elizabeth's dominant values level. The blue values meme is <b>sacrifice-self</b> orientated and it emerges in conditions of chaos created by conflicts, deprivation, and suffering with a desire to bring discipline, order through religion, culture, or nationalism. People who value the blue values meme tend to have a future time orientation; they believe that <b>one needs to sacrifice now by obeying the rules and authority</b> to get rewards later. In this level, the world is seen as an orderly place where here is meaning and purpose under the control of a powerful authority. This is why in this level respect for authority, <b>loyalty, patriotism, and rules are valued</b>. A life style based on "one true way" and "going by the book" in dealing with problems or issues in life is very characteristic of this values meme. Therefore, people are <b>expected to accept the judgment of the authority</b> (politicians, parents, and religious leaders) and play their roles to maintain a healthy society. Strict religious communities, highly structured societies, or highly bureaucratic organizations are places where this values meme is common. The value meme has certain belief characteristics in that: all life is seen as being predetermined, by an all-powerful and all-knowing God, individuals sacrifice self for the cause or truth, a code of conduct is based on absolute principles, <b>character is built on laws, discipline, morality</b> and social order is rigid.</p> <p>The <b>orange</b> value meme (ER, achievist) is express self-orientated and in this level the world is seen as a place full of opportunities and resources. Capitalist values, technological advancement, economic power, and competition are valued within this level. In this level <b>priority is given to self-advancement</b> rather than the community, bureaucracy and heavily structured systems are not valued. People who value this value meme have an entrepreneur perspective in life and for them <b>manoeuvring within the rules of an organization or a system to get ahead</b> and testing available options in life to reach a goal are common attitudes. The value meme has certain belief characteristics: <b>that independence and autonomy should be sought</b>, the truth should be sought on an individual basis, thoughts should be reflective on and questioning an individual's values and beliefs, objective methods should be used to obtain and communicate knowledge, achievement, advancement and change should be sought out and <b>materialistic gain should be sought</b>.</p>
<b>Collegiality</b>	<p>In respect to collegiality Elizabeth was another teacher at the school that seemed to <b>prefer the company of other members of staff that had similar views and beliefs</b> as she did. She was observed on many occasions to sit with the same teachers' in the preparation room, usually in deep conversation. These teachers were invariably teachers that had some form of extra responsibility in the school such as year or curriculum coordinators. She was also seen on many occasions to sit with and partake in deep conversation with the school principal.</p>
<b>Pedagogical beliefs and values regarding education, conflict, change and stress management</b>	<p>Elizabeth she saw the purpose of education as being the means for <b>helping students to make sense of the world</b> and for facilitating students in reaching their true and full potential. She also saw education as providing the <b>opportunities for students to become employable</b>, provide them with life skills and generally a way of improving their lives.</p> <p>When asked how she believed students learned best Elizabeth responded by saying that she thought students learnt best in an atmosphere of <b>respect, self-control and fair treatment of others</b>. These beliefs were indicative of an acceptance for the blue way of thinking. In respect to beliefs regarding student discipline Elizabeth firmly believed that <b>teachers should be the main authorities of controlling students</b> in respect to their behaviour management. This is indicative once again of the blue way of thinking.</p> <p>Elizabeth firmly <b>believed that all teachers should work together by strictly adhering to the policies of the school</b>. She disliked those teachers that deviated from school protocol.</p> <p>Elizabeth's <b>pedagogical beliefs and values regarding education</b> were clearly orientated towards the <b>blue way of thinking</b>. Where the blue values meme is sacrifice-self orientated. In this level, the world is seen as an orderly place</p>

	<p>where there is meaning and purpose under the control of authority. This is why in this level respect for authority, loyalty, and rules are valued. A life style based on “one true way” and “going by the book” in dealing with problems or issues in life is very characteristic of this values meme.</p> <p>Elizabeth explained that the role of <b>assessment</b> was to provide an indication as to how well a student was <b>performing academically</b>. She also believed that assessments should be used to motivate students. She responded by saying that she had used assessments to motivate her students.</p> <p>In respect to change Elizabeth believed that <b>the rate of changes that were being implemented from outside agencies had steadily increased</b>. These changes she believed concerned administrative roles. Elizabeth believed that the roles of administration were changing in an increasingly <b>intensifying</b> way, with continuing emphasis being placed on <b>compliance and auditing</b>. Such changes she thought were the most frustrating aspect for to except. She also expressed concern for the <b>lack of provision of time and suitable resources</b> to implement them.</p> <p>She responded by indicating that she <b>was happy</b> and that she did sometimes feel overworked. However, although she admitted that she believed that she was being overworked, she reconciled the overworking, as being an inevitable part of her job.</p> <p>For Elizabeth, <b>lack of time</b> was perceived to provide the greatest challenge for her especially time away from her students, as she believed that her role as deputy principal took up to much time.</p> <p>When asked how she managed personal autonomy with school conformity. She said that she always had difficulty complying with her employing authority [the catholic education office] introducing educational initiatives that she was opposed to. However, Elizabeth indicated that such conflicts of interest should ideally be managed in consultation. <b>She believed that the school did not have a very positive working environment. She believed that there were too many teachers that were employed at the school that were either waiting for retirement or were perceived by her as being too negative. Such teachers she believed were not working to the best of their abilities and as such the students and the school were both suffering as a consequence.</b></p> <p>When asked if she believed that the provisions for <b>professional development</b> were adequate for the school and administrative staff, she responded by saying that she believed that the provisions needed to be extended to include all subject areas of the school as only the core subject areas had sufficient provision. Elizabeth also believed <b>that further provision be made for the administrative staff</b> also.</p> <p>When asked how she managed stress Elizabeth responded by saying that <b>in times of stress</b>, she would try to relax and if required would <b>seek assistance</b>. She would often speak over concerns with her husband after school.</p> <p>Asked whether she thought that the school provided for adequate support for individuals who might have been suffering from stress Elizabeth responded positively. She <b>believed that the school did provide adequate resources for teachers</b> in the form of a free counselling service. Elizabeth also believed that teachers’ were able to speak with the school principal if required.</p>
<p><b>Recruitment of staff</b></p>	<p>In respect to <b>recruitment</b> Elizabeth <b>believed that the current system that was employed by the school in teacher recruitment was more than adequate</b> and did not think that the process needed changing. However, she did express some concern that the process was not perfect and mistakes have been made in the past, especially with some individual teachers that had been unable to embrace the Catholic ethos of the school. The statement above provided a clear indication that <b>Elizabeth favoured teachers that had a similar belief in the blue way of thinking.</b></p>

*Michael's summary*

<b>Michael</b>	
<b>Portrait accepted value memes summary</b>	<p>According to the values test Michael <b>scored highly</b> in both the <b>blue (DQ, absolutist) and orange (ER, achievist)</b> values memes.</p> <p><b>Blue</b> was Michael's dominant values level. The blue values meme is <b>sacrifice-self</b> orientated and it emerges in conditions of chaos created by conflicts, deprivation, and suffering with a desire to bring discipline, order through religion, culture, or nationalism. People who value the blue values meme tend to have a future time orientation; they believe that <b>one needs to sacrifice</b> now by <b>obeying the rules and authority</b> to get rewards later. In this level, <b>the world is seen as an orderly place</b> where here is <b>meaning and purpose under the control of a powerful authority</b>. This is why in this level <b>respect for authority</b>, loyalty, patriotism, and rules are valued. A life style based on "one true way" and "going by the book" in dealing with problems or issues in life is very characteristic of this values meme. Therefore, people are expected to <b>accept the judgment of the authority</b> (politicians, parents, and religious leaders) and play their roles to maintain a healthy society. Strict religious communities, highly structured societies, or highly bureaucratic organizations are places where this values meme is common. The value meme has certain belief characteristics in that: all life is seen as being predetermined, by an all-powerful and all-knowing God, individuals sacrifice self for the cause or truth, a code of <b>conduct is based on absolute principles</b>, character is built on laws, discipline, morality and social order is rigid.</p> <p>The <b>orange</b> value meme (ER, achievist) is express self-orientated and in this level the world is seen as a place full of opportunities and resources. Capitalist values, technological advancement, economic power, and competition are valued within this level. In this level priority is given to <b>self-advancement</b> rather than the community, bureaucracy and heavily structured systems are not valued. People who value this value meme have an <b>entrepreneur perspective in life</b> and for them manoeuvring within the rules of an organization or a system to get ahead and testing available options in life to reach a goal are common attitudes. The value meme has certain belief characteristics: that <b>independence and autonomy should be sought</b>, the truth should be sought on an individual basis, thoughts should be reflective on and questioning an individuals values and beliefs, objective methods should be used to obtain and communicate knowledge, achievement, advancement and change should be sought out and <b>materialistic gain should be sought</b>.</p>
<b>Collegiality</b>	<p>Although Michael was observed to prefer the company of other members of staff that had similar views and beliefs as he did, such as with the deputy principal. He was often observed on many occasions to <b>sit by himself</b>, often in the <b>privacy of his office</b>, usually for hours at a time completing work on his desktop computer. At break times he was observed to sometimes meet with staff in their staff room, but for only very brief moments of time. Invariably he would be found to be standing on the outside of groups nervously trying to join in the pursuing conversations.</p>
<b>Pedagogical beliefs and values regarding education, conflict, change and stress management</b>	<p>Michael responded when being interviewed that he believed that the <b>purpose of education</b> was to <b>provide a mutual benefit between individuals and society</b>. When asked what he believed to be the role of teachers in the context of teaching and learning Michael responded by indicating that he thought that <b>teachers should be like instructors</b> and impart new knowledge to their students. He also believed that this process of instruction should be managed through discipline, which is conversant with the blue way of thinking. Michael believed that <b>he was very privileged</b> in being able to work with children. He <b>placed high priority on students achieving high academic grades</b>. In the orange way of thinking achievement, <b>advancement and change should be sought out and materialistic gain should be sought</b>.</p> <p>In respect to student management and discipline Michael believed that teachers should maintain such issues. He believed that <b>teachers were sometimes a causal factor in perpetuating some student misbehaviour in their classrooms</b>.</p> <p>Michael explained that he believed that the primary role of <b>assessment</b> was to be used <b>to determine and monitor what students had actually learnt</b>. He also believed that assessment should also be used to provide a means of motivation for students. Michael also believed that assessment could be used as a tool in determining how successful teachers had been in their teaching. In respect to perceived changes</p> <p>Michael believed that that the <b>rate of changes that were being implemented from outside agencies</b> had steadily increased. These changes he believed concerned administrative roles. Michael believed that the roles of administration were changing in an increasingly intensifying way, with continuing <b>emphasis being placed on compliance and accountability</b>. Such changes he thought were the <b>most frustrating aspect</b> for him to except.</p> <p>For Michael, he believed that <b>working with and conversing with adults</b> was</p>

	<p>his <b>greatest challenge</b>. He freely admitted that this was due in part to the fact that <b>he believed that he was too shy and introverted</b>.</p> <p>When asked how he <b>managed stress</b> Michael responded by saying that in times of stress, he would try to <b>relax by either walking or playing golf, and if required would seek assistance</b>. He would often speak over concerns with his wife after school. <b>In very stressful times Michael would use prayer</b>.</p> <p>According to Michael, he and the school <b>administration</b> staff had a discreet role, and that role was to <b>provide suitable leadership</b> for the school and provide suitable support for both teachers and students.</p> <p>Michael <b>indicated that he was very happy</b> in his position as principal of St Catherine's High, as he believed that it provide him with a purpose to his existence.</p>
<p><b>Recruitment of staff</b></p>	<p>Michael believed much like Elizabeth that the current system that was employed by his school in teacher recruitment was more than adequate and did not think that the process needed changing. However, he did express some concern that the process was not perfect and mistakes have been made in the past, especially with some individual teachers that had been unable to embrace the Catholic ethos of the school. The statement above provided a clear indication that Michael like Elizabeth <b>favoured teachers that had a similar belief</b> in the blue way of thinking.</p>