Student Workload and Assessment: Strategies to Manage Expectations and Inform Curriculum Development

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Abstract

This study reports the results of a survey of student study times and perceptions of workload in undergraduate and graduate accounting courses at a large Australian public university. The study was in response to student feedback expressing concerns about workload in courses. The presage factors of student workload and assessment in Biggs's (1989) 3P model are used because these factors can influence students' approaches to learning and therefore course improvements based on these factors could bring the greatest benefits. The findings suggest that the workload is not too heavy but that student perceptions of workload can be improved by clearer communication of teacher expectations and targeted course review to implement constructively aligned curricula. Initiatives implemented in assessment and to better match workload expectations between student and teacher are discussed and could be generalized to most courses. Areas for further research in student workload management are proposed.

Keywords: student workload, student perceptions, student and teacher expectations, communication strategies, curriculum design

1. Introduction

Workload is a complex construct with a wide range of variables, including presage student characteristics and the academic environment, that influence student approaches to their study. A heavy workload, actual or perceived, has implications for driving undesirable student learning behaviours where a surface approach is adopted. Ramsden (1991) reported

that students with a deep approach to learning report higher levels of overall satisfaction with a course of study. The current study arose out of a concern that students reported perceptions of heavy workload across accounting programmes at a large Australian public university. The student perceptions were sourced from Student Evaluation of Teaching ('SET') surveys and Course Experience Questionnaires ('CEQ') over five years. SETs and CEQ were both key elements of university teaching quality assurance systems, with significant government funding for Australian universities attached to performance in the CEQ. For around two decades the CEQ responses from accounting graduates in Australia have consistently indicated a strong student perception that workloads are too heavy, generally did not give them enough time to understand issues, placed them under too much pressure, and did not give them enough time to comprehend the content because of the sheer volume of work. The CEQ reports over a period of five years indicate student satisfaction with appropriateness of workload scores ranged from 20 per cent to 33 per cent. More specifically, the University's Accounting School's Unit Experience Questionnaires ('UEQ'), an SET modelled on the CEQ, also indicated significant student concerns over workload. The School's UEQ responses for an overlapping five-year period, indicated student satisfaction with appropriateness of workload ranged from a low of 29 per cent to a high of 34 per cent (Dixon, Scott and Dixon, 2006). UEQ qualitative responses to workload indicated similar concerns to those in the CEQ (Dixon et al., 2006).

Parkinson *et al.* (2006) point out that in professional courses, managing the 'information explosion' without creating curriculum overload is a pressing problem in Higher Education teaching. Accounting programmes have had to respond to significant change in the regulatory climate of the profession resulting in increased pressure on accounting courses. In the past 25 years across all international accounting regulatory

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¹ http://planning.curtin.edu.au/surveys/secure/ceq2001_2005report.pdf. p.49.

domains there has been a significant increase in the complexity of the regulatory framework in which accountants operate; incorporating Sarbanes-Oxley in the United States ('SOX') and the Corporate Law Economic Reform Program ('CLERP 9') in Australia (Merino, 2006). The broad international adoption of International Financial Reporting Standards ('IFRS') since 2004 has significantly increased the technical complexity of the accounting environment. The increasing technical emphasis presents challenges to teaching staff to meet professional accreditation requirements whilst managing course workloads for a diverse student cohort.

This study takes up the suggestion by Lizzio *et al.* (2002) that workload and assessment could be useful areas to investigate the reasons behind SET data. Identified course factors could be changed to assist better student learning and later student perceptions about their course workload. The intent of the current study was not to comprehensively address all aspects of student workload and assessment but to select a few relevant factors that could guide the process of reviewing courses where the need was greatest. The researchers agree with Lizzio *et al.* (2002) that focusing on workload and assessment could bring greatest benefits to course improvement because these two factors can drive students towards a surface approach to learning. As Biggs (1989) points out, the way students are assessed sends the greatest message to students about the expectations of teachers and can be a significant influence on their learning approaches.

The paper begins with a brief outline of the elements of Biggs's (1989) Presage, Process and Product model ('3P model') that informed the approach to our study followed by a review of the student workload literature. The methodology employed to collect the survey data is then discussed. The data analysis, both qualitative and quantitative, is then presented with an ensuing discussion of the implications of the findings. Specific strategies put in place by the School as a result of the survey findings follow. The results, to date, of

these strategies are then considered with suggestions for additional strategies. Finally, a conclusion is presented, including recommendations for further research.

Student workload is a complex construct of aspects that can be drawn from the student and the learning environment. This study took elements of Biggs's (1989) 3P model because it provides a framework for investigating the learning process in an integrated system comprising three components. The first component is presage factors that relate to student characteristics and the teaching context. Presage factors in students are those which they bring prior to learning and include prior knowledge, abilities, motivation and conception of learning. This study, when considering presage factors that relate to student characteristics brought to the learning process, examines demographic characteristics that typically profile accounting students in the Australian context at the commencement of their studies. These include native language, enrolment type and residency. The inclusion of these specific variables is discussed in greater detail in the data analysis below. Presage factors in the teaching context include all the factors under the teachers' or institutions' control and include the course structure, content, teaching methods, workload and assessment, which Biggs argues 'generate a climate for learning which has important motivational consequences' (Biggs, 1989, p. 12). This study does not intend to comprehensively use all aspects of presage from the 3P model but will focus on student workload and assessment. This approach came as a response to the suggestion by Lizzio et al. (2002) that investigating and implementing improvements based on these teaching context presage factors could bring greatest benefits to course improvement because these two factors drive students to towards a surface approach to learning. Biggs argues that the 3P model is 'an interactive system in equilibrium; ... and variations to any one component affect the whole system' (Biggs, 1989, p. 12). As such, this study focuses on presage factors with the aim of ultimately influencing process and product factors.

Process factors describe how students approach their learning. One orientation is termed a deep approach, where students strive for understanding by applying ideas, and another orientation is termed a surface approach, which uses reproductive strategies. Product factors generally encompass assessment scores (grade point averages) and student evaluations of education, expressed as satisfaction with a course (Lizzio *et al.* 2002).

2. Literature Review

Despite earlier calls for research into the area of student workload by Chambers (1992), it wasn't until the European Credit Transfer and Accumulation System ('ECTS'), part of the Bologna process, commenced in 1999 that the workload issue was given greater prominence. Since then the significance of taking into account workload with curriculum development has been established in areas of tertiary study other than accounting (Ramsden, 2003). Additionally, the importance of active engagement in learning and its role in motivating students to study has been widely reported (Chambers, 1992; Entwistle and Ramsden, 1983; Ramsden, 2003).

In 1992 Chambers argued that an appropriate workload is a key aspect of sound studying and learning as it supports student engagement in the learning process (Chambers, 1992).² Overloaded curricula with too much content all taught with equal emphasis can lead to inappropriate student workload (Weerakoon, 2003). Excessive workload has been shown to lead to a surface learning approach, characterized as passive, unmotivated and non-reflective learning where memorization and reproduction of unrelated facts is evident in order to complete assessment tasks. This is in contrast to a deep learning approach evidenced by a motivated, enquiring and critical approach to learning, which is encouraged by

² Chambers suggests that an appropriate workload for the full time students is 40 hours per week including class contact hours and study outside of class time. This is consistent with the European Credit Transfer and Accumulation System position on workload.

appropriate workloads (Entwistle and Ramsden, 1983; Chambers, 1992; Biggs, 1993; Ramsden, 2003). Another potential implication associated with excessive workloads and therefore increased time pressure is the likelihood that this pressure may lead to students engaging in plagiarism (Franklin-Stokes and Newstead, 1995; Park, 2003; Delvin and Gray, 2007).

Convincing students to allow adequate time for the learning process is challenging and Sanborn, Schwartz and Walden's (2000) exploration of the study time gap highlights the complexities of communicating study expectations to accounting students. They conclude that students need to spend more time studying and that communication between students and instructors is vital. They suggest that improvement in these two areas should lead to better student study habits, but offer little reflection on the learning context that could motivate students to do this.

A number of studies have specifically focused on the impact of workload perceptions on student learning (Kember *et al.*, 1996; Kember and Leung, 1998; Kember, 2004). These studies highlight that more time spent studying will not necessarily foster deep learning. Kember *et al.* (1996) found a relationship between students' perceptions of workload and motivation. Using case study and path analysis they found students perceive workload to be a function of individual characteristics, approaches to and conceptions of the learning context. Importantly, actual workload is not a good measure of perceived workload. Kember claims that if the course encourages a surface approach to learning this can lead to perceptions of heavy workload. This study reported that students could be motivated to work if the study time goals set by faculty are realistic. Thus the management of student perceptions of workload is to a large extent affected by how well students can be motivated (Kember, *et al.*, 1996). Kember and Leung (1998) used path analysis and found a positive link between a surface approach to learning and perceived heavy workload for engineering

students. Kember (2004) used a series of case studies to explore how student perceptions of workload are created. This study concludes that student perceptions of workload to be influenced by course content and difficulty, the types of assessment and the student–teacher and teacher–student relationships (Kember, 2004). Furthermore, Kember proposes that students can be actively encouraged to work longer hours to achieve a desired outcome if the assessment, teaching style and curricula are well designed and managed. Student feedback on curriculum is an important tool to inform innovations that aim to motivate students in their studies.

A number of studies have suggested that student perceptions of workload can be influenced by the teacher actively encouraging a deep learning approach through creating an engaging teaching and learning environment and managing workload (Kember *et al.*, 1997; Dahlgren, 1984; Kember, 2004; Lawless, 2000). However, increasing the proportion of students using a deep learning approach is not a straightforward task. Cope and Staehr (2005) found monitoring student perception of workload was important for manipulating the learning environment to encourage deep learning approaches. The action research study, conducted over five years, evaluated small scale subject adjustment to the learning environment in an undergraduate Information Systems course to encourage a deep learning approach. Multiple revisions of the learning environment were required. A significant factor in the relative lack of success in interventions appeared to be student perception of excessive workload and its influence on students' approaches to their study. Additionally the institutional teaching and learning context has a profound impact on what can be achieved in fostering student deep learning approaches.

A number of Veterinary Medicine studies (Parkinson, Gilling and Suddaby, 2006; Ruohoniemi and Lindblom-Ylanne, 2009) have found that surveying students to investigate presage factors has been very useful in guiding curriculum planning. Parkinson *et al.*'s

(2006) study asked students to record study time and leisure activities across the five years of a veterinary science undergraduate course. The research sought to understand students' workload, methods of study and motivation to study. In this research, workload and the demands of assessment were considered antagonistic. The conclusion was that the heavy workload, created by excessive content, and assessment practices drove reproductive and surface approaches to learning. The volume of knowledge in a Veterinary Medicine undergraduate degree is too great and requires rethinking the curriculum. Curriculum renewal at this level is a huge task, and very resource intensive. Additionally, resolutions to tensions with faculty expectations of learning methods and how students actually learn need to be found.

The issue of rapidly increasing discipline knowledge and its impact on curriculum design is discussed in a pharmacy course (Sansgiry, Bhosle and Sail, 2006). Test anxiety, time management, test competence, academic competence and study techniques are some of the factors that affect student performance. These were chosen to assist with the development of strategies to help students identified as underperforming. Time management was operationalized as the ability of students to juggle leisure and study to prepare for exams. Results indicated that students found it difficult to manage their study and leisure time and many were in paid work. This study concluded that the assessment model needed to be reconsidered to include the introduction of assessments to apply student knowledge; reduce the amount of material assigned to examinations; and to use survey instruments to identify students at risk of failing to target them for support. The findings indicate that variables such as age, gender, race, employment, marital status and number of dependents were not significantly associated with cumulative grade point average ('GPA').

Lizzio *et al.* (2002) found that appropriate workload and assessment (as measured through the CEQ) were significant negative predictors of a surface learning approach. They

also found that elements of the learning environment that the teacher can control can positively influence the way students approach their learning and the outcomes they achieve. Thus, interventions if appropriately conceived and implemented will make a difference. Large scale change to courses can be difficult to implement and sustain, and teachers and administrators may not have the knowledge or will to undertake the change. The latter requires a long term approach to course development.

This study therefore investigated workload across core subjects in an accounting major in order to be able to target subjects for the best chance of success in changing student perception of workload and assessment in the subject. In the short term some of the teachers of the subjects identified made changes to their learning environment and student feedback on these is reported. Some of the smaller scale innovations were easy to implement and were adopted school-wide and are discussed below. Longer term changes to the overall school learning environment are also discussed.

The current study, while investigating student study times seeks to approach it by incorporating aspects of the teaching context, which can influence student perception of workload and consequently their learning behaviour. This study, whilst acknowledging the costs associated with inappropriate workloads does not focus on the learning implications. Rather we investigate student and teacher perceptions of workload in order to identify mechanisms to enable better management of student workload perceptions.

Four key questions underpinned the study:

- Is the current workload for accounting students too high?
- Do teacher expectations of student workload match those of their students?
- Can teachers communicate their expectations better?
- If the work load is not too heavy, can factors that create student perceptions
 of excessive workload be identified?

This research aims to answer these questions and also provide some strategies for dealing with workload issues from both the student and teacher perspectives. Further by incorporating key student characteristics the study enables identification as to whether or not those strategies should be applied across the entire cohort or targeted specially at certain groups.

3. Method

3.1. Participants

The participants in this study were students completing an accounting unit in the second semester of the academic year as part of either the undergraduate or graduate degree programmes in an Australian university. This large, metropolitan, public university has over 40 000 students and a significant international cohort. The choice of university addressed the desire to improve student learning outcomes at the author's university. The accounting school used in this study is representative of accounting schools across Australia. From a curriculum perspective, both the accounting undergraduate major and the graduate programme are nationally accredited programmes, subject to the same accreditation knowledge requirements. Therefore the course content, which is accredited by Australia's two leading professional bodies, the Institute of Chartered Accountants and CPA Australia, covers the same required topic areas as all other accredited accounting schools in Australia. Similarly the course outcomes are effectively governed by the accrediting bodies and do not vary between the undergraduate and postgraduate programmes considered in this study. A detailed study by Jackson et al. (2011) of accounting undergraduate and postgraduate programmes found that unit co-ordinators in accounting units acknowledged that the course content in accounting undergraduate and postgraduate programmes was substantially the same and that learning outcomes for both courses are largely set by the accrediting bodies.

Further, the sample school, similar to its Australian counterparts, has a demographic including a large number of international students for whom English is a second language, a three-year undergraduate programme, an eighteen-month and two-year graduate programme, and caters for both full-time and part-time students. The teaching model for Australian accounting schools is also relatively consistent across programmes. The units chosen were done so on the basis that they are all required units in the accredited major and prerequisites for the unit that was surveyed for the following year. As such we have a group of students who are all intending to complete an accounting major with a view to completing an accredited programme working through an aligned curriculum. All students were completing their course of study in the same school governed by the same assessment policy. Participation in the study was voluntary. All students had the same class contact of three hours per unit per week. A full-time study load is considered to be 40 hours per week, including 12 hours of class contact. The demographics noted above are reflected as variables in the analyses that follow.

3.2. Data Collection

Reed *et al.* (1984) used student study time surveys ('SSTS') and reported that the self-reported survey could provide useable data. Lockwood (1999) concurred and showed work diaries could contribute to greater understanding of student workload. On a larger scale, the Higher Education Policy Institute ('HEPI') commissioned surveys in 2006 and 2007 of 15 000 students in English universities. The surveys focused on the amount of teaching and private study undertaken by students and their levels of satisfaction. There was considerable consistency between the surveys, which the researchers believed indicated that students were estimating with sufficient accuracy (Sastry and Bekhradnia, 2007). In this study, snapshots were used where participants completed a study diary for four separate weeks of the 14-week

semester. The weeks were chosen by the unit coordinator. It was acknowledged that the snapshot would introduce bias for some units (e.g. increased workloads when an assignment was due or an imminent test) but that this would inform the study on the decisions students make with the competing demands for study time. Students were given the diary at the end of their tutorial in the week prior to the reporting week and asked to complete their record as accurately as possible and return the diary at their tutorial the next week (Attachment A). To ensure student confidentiality, all diaries were collected by a student volunteer and placed in a sealed envelope then returned directly to the Office of Academic Development within the University.

In order to overcome previous difficulties identified with self-reported students workload diaries (Chambers, 1992; Kember, 2004), the unit outlines for each course in the study included a summary of what the unit coordinator (usually the principle teaching academic) considered would be an appropriate workload for a student of average ability for that particular week. The principles of ECTS and the associated 'Tuning' methodology provided a model for breaking down workload items and quantifying workload for credits. This included a breakdown of workload hours required for specific tasks, which could include project work, reading, review of worked examples and review of tutorial questions.

Students were advised that an appropriate workload for an individual unit was on average ten hours per week including three hours class time. In addition, the diary also summarized the learning topics for that week, the educational activities and assessment preparation, as well as whether any assessment tasks were to be completed. Students were asked to provide any additional comments about the workload in the specific unit in an open ended question so that the qualitative data could be analysed to allow greater depth of understanding for the study.

Each work diary was anonymous but students were asked to provide demographic information including the programme of study, whether or not they came from a non-English speaking background, year of study (first, second, third year or graduate), enrolment type (full-time or part-time), and residency (Australian or other). The concept of workload was explained to the students as being measured in the number of contact hours and any time spent on independent study. Students were asked to judge how many of those hours they believed promoted meaningful learning. Meaningful learning in the context of this study is as described by Kember (1998) and Marsh (2001) where students are motivated to learn because they can see that there is a clear goal to be achieved and they considered it valuable to their learning. Three additional questions were asked in order to link workload to the two core areas of assessment and unit outcomes. Specifically students were asked to indicate on a 6-point scale from 'strongly disagree' to 'strongly agree' whether the workload was reasonable for achieving the unit's learning outcomes; whether they had easy access to the assessment task instructions; and if the assessment instructions were clear. These additional assessment questions were asked to investigate student concerns that they did not know what was expected by the lecturer or they had difficulty locating instructions because these were not released through the unit outline document but were released on BlackboardTM, the learning management system, just prior to the assessment task period. This practice is common amongst unit coordinators to help manage student queries about assignments before the requisite content and skills have been covered in the unit.

4. Data Analysis

4.1. Quantitative Analysis

In total 2,297 completed usable responses were received giving a response rate of 30 per cent. The descriptive statistics, including correlations, are presented in Tables 1 and 2 respectively.

[Insert Table 1 here]

[Insert Table 2 here]

On average all students were working below the required workload of seven hours with an overall mean of 5.4 hours, of this, 2.7 hours was, on average, considered to promote meaningful learning. The data indicates that across all students, students were, on average, doing 1.6 hours less a week, which was significantly less (p=<0.000) than the suggested time of seven hours per week per unit for the average student. In response to the statement 'The workload is reasonable for achieving the unit's learning outcomes', the average response of 3.6 on a 6-point response scale indicates that students believed the workload to be appropriate (refer Appendix A). This was significantly different from the neutral point of 3, (p<0.000). The correlations presented in Table 2 indicate significant differences for residency, native language and weeks of study for both meaningful and total hours. Year of study was significantly different for total hours but not for meaningful hours. Enrolment type was significant for meaningful hours but not for total hours.

Separate multivariate regressions were run for both dependent variables, total hours of study and meaningful hours incorporating five independent variables: native language, enrolment type, year of study, residency and weeks of study. The choice of the independent variables was informed by firstly Presage factors in Biggs's 3P model, which suggests that the characteristics students bring to study impacts on their learning, in this instance native language implications are investigated. The choice was also informed by the demographic data typically used in university and government surveys of students to present data captured by four key student surveys, namely UEQ, CEQ, CASS and eVALUate. This typically

includes residency, native language, year of study and enrolment type. As noted in the initial discussion, one of the main aims of this study was to inform the authors about the situation in their university and thus inform directed strategies. Finally the choice of variables was informed by prior research where available. Residency and native language to some extent capture the same issue, that is, students for whom English is a second language. Jackson et al. (2006) noted that the English competency of students completing accounting assessments had the greatest impact on student learning. The ability to deal with an already overloaded curriculum is compounded by instruction in a language other than the students' first language. A reduced ability in the language of instruction has been shown to exacerbate learning difficulty and further enforces a surface learning approach (Kember and Leung, 1998). To date there are few studies that look at reading rates for comprehension for non-English speaking tertiary students. In a study examining the workload of an undergraduate Physics course, Suresh et al. (1992) have suggested that reading times for students from a non-English speaking background can reasonably be expected to be about 30 per cent slower when compared with the rates of native speakers, as discussed by Chambers (1992). Enrolment type was also included to determine if there were workload issues for full-time versus part-time students. Part-time students, who typically face external pressures such as family responsibilities and work, have been identified as an at risk of attrition group (Curtin, 2009). In the case of full-time students, their workloads are compounded by the need to work to support themselves, with one study noting over one-third of students work more than 15 hours per week (Ketchell, 2002, cited in Cope and Staehr, 2005). The week of study was included as an independent variable as previous studies have indicated that workloads are impacted when aligned with assessments (Kember, 1997). Year of study was included to reflect the increasing number of pathways into both undergraduate and postgraduate accounting programmes. As noted above, Biggs (1989) identified that the characteristics

of a programme from either a domestic or international secondary school. Students can now enter degree programmes directly into any semester and/or year of study including up to third year in undergraduate programmes via an increasing number of pathways and pathway providers thus increasing the potential for variation in the characteristics brought to their study. The correlations presented in Table 2 support the inclusion of all independent variables in the analysis for the dependent variable, total hours. Whilst the correlation between native language and residency is significant (r=0.58), the results of the regression analysis indicate that independent variables, residency and native language, each provide a unique contribution to the overall model in the case of total hours studied. Where meaningful hours was the dependent measure, native language was included in the regression for comparative purposes with the total hours regression, even though it was not significant. Inclusion of native language in the second regression had no bearing on the relative significance of the remaining independent variables.

4.2. Native Language

For students for whom English is a second language ('ENFL'), relative to native English speakers ('EFL'), the data presented in Table 1 indicates that ENFL students spent, on average, marginally more than one additional hour per week studying when compared to EFL students, 4.8 hours compared to 5.9 hours. The proportion of time spent studying, that promoted meaningful learning, compared to total time was, on average, 2.5 hours for EFL students and 2.8 hours for ENFL students. The regression analysis presented in Table 3 shows that native language contributed significantly to the workload variance for total hours (p<0.01). This relationship was not significant for meaningful hours as indicated by the analysis in Table 4.

[Insert Table 3 here]

[Insert Table 4 here]

4.3. Residency

The descriptive results for residency largely mirror those for native language. For Australian residents relative to non-residents, the data presented in Table 1 indicates that resident students spent, on average, slightly less than one additional hour per week studying when compared to non-residents (4.7 hours compared to 6.0 hours). The proportion of time spent studying that promoted meaningful learning compared to total time was 2.5 hours for Australian resident students and 2.9 hours for non-residents. However for residency, unlike native language, the regression analysis shows that residency was a significant contributor towards explaining the variance in workload hours for both total hours (p<0.001) and meaningful hours (p<0.001).

4.4. Enrolment Type

The descriptive data in Table 1 indicates that, on average, there is very little difference in total hours spent studying when comparing full-time and part-time students, 5.4 hours for full-time students compared with 5.2 hours for part-time students. For meaningful hours the descriptive data indicates a mean of 2.7 hours for full-time students compared with 3.0 hours for part-time students. Enrolment type did not contribute significantly to the variance in total hours but did so for meaningful hours (p<0.01).

4.5. Year of Study

Average total hours studied across the three undergraduate years and the graduate year ranged from a high of 6.7 hours for graduate students to a low of 3.9 hours for first year

students. For meaningful hours the range was a high of 3.3 hours for the second year students to a low of 2.3 for the first year unit. Year of study was a significant contributor to variance in total hours studied (p<0.001) but not for meaningful hours.

4.6. Weeks

Weeks of study was treated as a dichotomous variable divided between weeks in the first half of semester up to the first piece of major assessment and weeks in the second half of semester. As can been seen from the qualitative analysis that follows, this treatment of weeks is consistent with how students perceived the workload. In the first half of semester students completed on average 5.9 hours of study, with 2.6 hours considered meaningful, and in the second half of semester the means were 4.8 hours and 2.9 hours respectively. Weeks of study contributed significantly to explanations in variance of both total hours (p<0.001) and meaningful hours (p<0.001).

4.7. Qualitative Data Analysis

The analysis was conducted according to the tenets of qualitative inquiry (Patton, 2002). A coding framework was developed to classify the main themes that emerged from the student comments. The analysis of the student comments was conducted with a view to identifying the clusters of responses that illuminated the participants' perceptions of their workload rather than recording the frequencies of responses. Quotations from the data have been chosen because they illustrate the majority view of participants in the study. The analysis of the qualitative data is structured around the four key questions referred to above being appropriateness of workload, students and academic expectations, and communication. The fourth question, 'If workload was appropriate, what is driving students' perceptions of inappropriate workloads?' was largely exploratory being dependent upon the outcome of the

first question and was analysed based on the emergence of other themes from the qualitative analysis including unit delivery, assessment and course design.

4.8. Appropriate Workload

Findings indicate that, in general, undergraduate students considered the workload to be appropriate in most units surveyed. This, in turn, supports the quantitative analysis. In a first year unit most students reported that the workload was appropriate in order to achieve the learning outcomes. As one student commented, '... the workload was appropriate, people who do the exercises and examples do well'.

Initial student comments for a third year unit indicated that the majority considered the workload to be heavy. Nevertheless, by mid-semester, although most students still considered the workload heavy, a change in attitude was apparent. Having settled into the routine of the unit, students considered the workload was heavy but it was acceptable. For example, 'Very fuzzy when semester started but now getting down to business and find that the workload is reasonable and can cope better, find that reading the handbook helps a lot in understanding the unit'. This was also supported by the quantitative analysis, which found that students spent less time on study in the second half of the semester but, as indicated by the greater proportion of time spent in meaningful learning, it was more focussed.

In the second year unit the students did not experience a similar adjustment to the study demands of the unit. Typical comments throughout the semester are illustrated by the following examples: 'The workload is very high as the weekly assignments are too lengthy and time consuming rather than being object oriented' and 'concentration is totally diverted towards assignments and the essence of the unit's syllabus is vague'. By the final tuition week students were still struggling with the lecture content not aligning with homework, an inadequate textbook, weekly assignment tasks and variable tutor quality. The qualitative data

indicated that there could be some broad issues in curriculum, delivery and assessment and these will be discussed further later in this paper.

Whilst quantitative analysis for graduate students suggests that the workload was appropriate, the qualitative data for appropriate workload perception for the graduate student cohort tended to focus more on lifestyle concerns – such as the balancing of work, family and study. For example, 'Workload total is excessive given other commitments in life including work and family'.

4.9. Teacher and Student Expectations

The documentation of teacher expectations for workload in the unit outline document (syllabus) seems to have been appreciated by students and gave guidance on 'time on task'. For example, one student commented 'The workload provides a very good system of learning, dedicates (sic) which work needs to be done and very helpful'. In the first year unit, students did not feel the need to work in order to achieve the outcomes and reported that 'The estimated workload in the unit outline is too high' and the 'Workload varies depending on topic. Last week I spent nine hours studying, this week I found the material easier to understand and therefore spent less time studying' and 'The workload instructed in the unit outline is normal for average students. But it is not necessary to follow the exact hours mentioned. For me, I spent less than the hours instructed and I got a really satisfactory mark in the mid-semester test'. This latter remark also suggests that there is a mismatch with student estimation of work to achieve outcomes and the teacher estimation.

The problem of mismatch was also evident in assessment preparation where students felt the time was underestimated or the lecturer had not given enough guidance on what was considered a reasonable amount of time to complete the task. Homework also was considered underestimated in some units, for example, 'reading the appropriate chapter and

the standards that were applicable to the chapter take far more time than that estimated on the unit outline'. Perception of heavy workload is illustrated by a third year student complaint that there was a 'Huge amount of work to finish six questions. Take about three hours to complete'. Given the suggested workload, this would still leave an expected four hours per week of work for the unit.

The quantitative data indicates that students usually reported working less than suggested hours but the perceptions of workload varied. Kember (2004) has suggested the content and degree of difficulty influences student perceptions of workload. For example, a second year student reported, 'It is a high workload unit, but content has been much easier from topic five onwards'. For a third year unit, students also reported a perception that the workload was heavy but considered that 'it is in direct relationship with the degree of difficulty'.

In another unit the teacher suggested 'work' times meant that students knew they should be doing more work, but were not. For example, one student wrote in their diary 'supposed to spend more time' another wrote 'Planning to spend more time'. For some students the heavy workload resulted in disengagement with the unit. By the end of semester, one second year commented, 'I just give up on doing it as there is too much to do and learn and cannot focus on any other units'.

4.10. *Communicating Expectations*

Results suggest that clear communication of teacher expectations for home exercises and assignments is a key factor in student perceptions of workload. Students reported that a lack of clarity in homework and assignments increased their workload. The requirement to do weekly assignments in the second year unit resulted in students reporting a heavy workload associated with these exercises. One of the reasons for this may have been a lack of clarity

about what tasks were required. For example, 'The weekly assignments can get confusing with the number of corrections on Blackboard and in the assignment schedule'. This frustration caused some students to feel that they were working hard but didn't feel their efforts were rewarded. 'The workload is extremely heavy, more than any of my other units. I tend to work very hard but I still find it difficult to keep up to date and I don't feel rewarded as much as I have tried'. In a third year unit, students reported low meaningful learning rates because they were not getting feedback, for example, 'Solutions would aid in making work time more meaningful as you can immediately assess your work'.

Towards the end of the semester, large group assignments caused considerable frustration for first year and third year students. In the first year unit this appears to have been caused by poor resources to assist students' management of their group work, and half way through the semester first year students had expressed concern regarding a lack of clarity about expected outcomes from the group assignment. The following comment suggests that the students took seriously the estimated times for coursework completion, 'The group project needs to have more time allocated to it. It's hard to coordinate groups of four people and it really makes the unit more stressful. Group work makes the workload heavier because it is hard to make it all the same standard so everyone's happy'. This sense of stress from group work was also evident in the graduate student cohort. One student commented that:

... the time I allocated to this unit [this week] was for the assignment only. I think this was due to going back and forth with the group. I had done quite a bit of preparation the week before but when I came together with the group we ended up going over this again. Did not get to do the standard weeks revisions but can do in the two weeks before the exam.

The comments from students illustrate their expectation that the learning experiences would articulate with the unit's assessments, for example, 'lecture not clear and the assessment tasks not clearly defined'. When issues such as this were perceived to occur, students lost motivation and, in some cases, disengaged from their unit. For example, 'There doesn't seem to be much link between with the tute (sic) questions and what is expected in the assignment. Totally confusing', and 'The tutorial questions are not helpful to the assignment. Seems pointless to come to tutorials'. These comments also suggest that effective communication between teachers and students has not always occurred.

4.11. Emergent Themes

The fourth question proposed a 'what if' scenario. If the results indicated that the workload was not too heavy then what are the factors that are driving the perceptions of a heavy workload as suggested by previous surveys. The qualitative analysis identified a number of emergent themes that are all linked to curriculum development. These include assessment, course design and delivery, and meaningful learning. These are discussed below.

4.12. Assessment

The qualitative analysis identifies three aspects of assessment that create concerns for students around assessment. These include competing requirements, assessment timing and links between assessment and unit outcomes.

In all the units students expressed concern and frustration with the competing requirements of units and their assessments. This is illustrated through the following student comments: 'I would like to spend a lot of time on it but I cannot afford to neglect my other units' and 'didn't do homework too many assignments for other units'

Assessment and its timing across the course caused student anxiety and perceptions of increased workload, for example, 'Assignment due at the wrong time clash with my other assignment and mid semester test, insufficient time to produce quality assignment'. The clustering of assessment at the end of semester, when many units have high stakes examinations, caused considerable student concern. For example, in a third year unit, the end of semester heavy workload was exacerbated by poor curriculum design. One student commented that:

Due to the assignment being relevant to Lecture 10 we are left only 2 weeks to complete it leaving an unbalanced workload across the semester. Along with the recommendation to do this in a group of 5 people (hence finding time to meet other people who may be working full-time) this appears to make this task very condensed.

The graduate students also expressed similar concerns. 'The timing of the assignment in the final two weeks of the semester put much more pressure on workloads available study time than would have preferred (sic)'.

4.13. Course and Unit Design and Delivery

The low reported hours of study could be attributed to the delivery style of some units. The first year unit did not require tutorial attendance; instead students were given access to semi-structured, voluntary workshops. The responses indicated that this was an unpopular system of delivery for many first year students. Possible explanations for this include student adjustment to the different learning styles required in higher education and, more importantly, reported varying quality of teaching at the workshops. Many students disengaged with the workshops and this may have contributed to the lower study hours

reported. For example, 'the workshop is useless. Why attend the workshop just to listen to the answer which we could get from Blackboard?' and 'lack of tutes (sic) makes it hard to stay motivated'.

Students reporting boredom could indicate that there were problems in unit design and/or delivery. For example, 'Workload is appropriate for learning the course material, it is just very boring' and 'Unit is a little boring thus making the unit harder. Apart from that I believe it is a reasonable workload for this unit'.

The data indicates that for some students their struggle was not necessarily the workload but the transition from first year to second year and their difficulties with increased expectations from teachers as they progressed through their course. This was illustrated by the comment, 'Too much workload, vast and sudden and dramatic amount of difference with accounting 1** [unit number]. Too difficult'. This suggests that the scaffolding of cognitive demand across the course and the amount of work required to achieve the outcomes could need some attention. Students also commented that there was an excessive amount of content covered in the second year unit.

In a third year unit many students had disengaged by week 10 of the semester. The unit curriculum design and assessment style appears to have prompted this disengagement. Students reported that the workload was appropriate but were unmotivated to engage because they felt there was no need to work because it was not assessed. 'No marks means no motivation' and 'as there is no exam ... there is no motivation to work in the last three tutes (sic)'. Students considered tutorial attendance non-essential since they did not make any connection between the tutorial exercises and the final group assignment, for example, 'the tutorial questions are not helpful to the assignment'.

4.14. Meaningful Learning

Comments from third year and graduate students provide some illumination relating to meaningful learning. The qualitative data suggests that heavy workloads promote a surface learning approach with insufficient time to understand and reflect. This is well-illustrated by the following example of student survey feedback, 'Sometimes there is so much work to do in that week (i.e. reading and questions) you feel there is little time to assess and understand what you have learnt'. Furthermore the data suggests that distribution of workload impacts on both student motivation and learning. 'Workload was better distributed this week and lecture material correlated better to tutorial questions' and 'The amount of work covered in the seminar is excessive which leads to it being difficult to comprehend and to be able to keep up ... Too much time to be spent. No time to understand'.

Kember (2004) suggests that teacher–student relationships influence student perceptions of workload. The results for this study support this view. A change in a unit lecturer had a significant impact on students where they reported lower confidence in their ability to cope with the coursework. For example, one student reported:

Accounting cycle three was a difficult lecture. Having a different lecturer made it even more so. I feel this has put me on the defensive. Before, I was very confident with the material up until that point.

Tutors are key teaching staff and can influence student perceptions of workload and learning experiences. The qualitative data suggests that there is extensive variability in the tutor approaches to workshops and seminars across many of the units surveyed. The students clearly considered the student–tutor relationship vital to their success, as illustrated in the following:

Workshops are not useful. I was expecting in-depth, procedural breakdown of additional questions. The instructor just runs through quickly what we should have in front of us and doesn't explain how/why answers are given ... I believe tutors are the most important because of a level of trust and relationship built to enable students who aren't confident approaching a stranger and asking for help.

It is not about the workload ... The most important thing is the way our tutor teaches to pass knowledge to the student. For this unit I understand well what the tutor is teaching.

5. Discussion

The following discussion is structured around the four key questions:

- Is the current workload for accounting students too high?
- Do teacher expectations of student workload match those of their students?
- Can teachers communicate their expectations better?
- If the work load is not too heavy, can factors that create student perceptions of excessive workload be identified?

In relation to whether the workload is too high the quantitative and qualitative data clearly indicates that undergraduate students considered the workload was reasonable in most of the surveyed units. This is in stark contrast to UEQ data received by the School for teaching periods prior to the period considered in this study. This suggests that by advising students of the overall workload expectation and by providing a breakdown of tasks, for example, reading time and tutorial preparation, students perceived the workload to be reasonable. However, this strategy did not have a similar impact in the second year unit and a third year unit, and other strategies adopted to improve student learning will be discussed in the next section of this paper.

Analysis of the data in relation to the second question suggests students' perceptions and therefore expectations of workload differ significantly from those of the teacher. Of particular interest is the difference between the total hours spent studying and the hours that promoted meaningful hours. Whilst students didn't consider this to be a problem, as indicated by their overall satisfaction with workload, it suggests a need for management by teachers. The failure to engage in meaningful learning in this instance is not a function of excessive workloads and suggests that something else is driving this finding. The fact that students believe only 50 per cent of their study time promoted meaningful learning suggests that either the curricula needs to be redesigned and/or teachers need to better communicate their expectations to students.

This is consistent with Biggs's theory on a 'constructively aligned curricula' where the outcomes, the learning experiences and the assessments are clearly linked. Where students report that a significant proportion of their time spent studying is not meaningful it may suggest that outcomes, learning experiences and assessments are not well aligned or that students need clearer communication on this alignment from their teachers. As Kember *et al.* (1997) suggest, student learning needs a motivation and strategy, and they need to see why the learning is relevant to them. It is interesting to note that as students moved into the second half of semester, even though they were doing statistically less total study hours than the first half of semester, a greater proportion of the total time was spent in meaningful learning. For the first half of the semester the proportion of meaningful hours to total hour of study was 44 per cent compared with 62 per cent in the second half of semester. This is consistent with Kember *et al.*'s (1997) findings, that the major assessment, an end of semester exam in this instance, both motivates and focuses student learning. The findings of this study suggest that better management of assessment timing could assist improvement in student workload perceptions.

The findings also suggest that strategies for engaging and motivating native English speakers may be different to strategies for non-native English speakers as the difference between the two groups was significant for total hours. The data indicates that the latter group are doing 18 per cent more total hours study than native English speakers, but it is not the 30 per cent that Suresh *et al.* (1992) suggest is necessary to compensate for varying language skills. This discrepancy in time is also evident in the results for meaningful hours of study as the increase in total hours did not translate into a similar increase for meaningful hours. In the heavily text-based third year unit, qualitative data emphasized that ENFL students struggled with the load. Further research, based on presage factors, is required to better understand how to manage workload expectations and perceptions for this diverse group.

5.1. Implications for Accounting Education—Some Suggestions for the Way Forward

A recent Australian accounting education report (Evans, Burritt and Guthrie, 2010) highlights the importance of ensuring accounting courses are relevant and add value, particularly in the light of increasing debate about questioning the need for university courses in accounting where more vocationally oriented courses may attract students to the profession.

Developing ways of identifying strengths and weaknesses in units and courses is important to assist university accounting academics in continuous course improvement. Biggs (1989) points out that institutional and social constructs can have a powerful effect on teaching and learning, and so identifying what can be changed in the teaching context, such as curriculum, teaching method, workload and assessment, would assist the school to target where the most benefit could be gained.

The findings in this study suggest some fundamental changes need to be incorporated not just into the specific units taught but also in an approach that considers a more team oriented approach to curriculum design to ensure an aligned curriculum across an accounting major. The nature of the accreditation processes in Australia suggests that this approach is one that would apply across all accredited accounting schools. The steps taken by the School of Accounting in this study are put forward as possible approaches for practice and policy development for other accounting schools. The approach suggested incorporates better communication with students, curricula and course re-design (emphasising assessment), professional development and the establishment of discipline workgroups including a team approach to curriculum design.

Chambers (1992) acknowledges that clear communication of requirements to students will lead to a better understanding of what is required of them. The clear communication of the unit coordinator's expectations, the actual tasks required and related workload requirement in hours on both a weekly and by-topic basis, changed students' perception of workload dramatically in most units. As a result of the success of this initiative the School has instituted this practice across all of its units at undergraduate, graduate and postgraduate levels.

The study has raised another important issue relating to curricula design and the communication of unit outcomes and their alignment with assessment. The School requires the inclusion of very specific but limited statements of unit outcomes in all unit outlines. To facilitate student engagement, the links between outcomes, learning experiences and assessment are communicated to the students through the School's 'Unit Reflection Sheet'. This document is completed by teaching staff and presented to students in the first lecture of each semester. More specifically the expected workload and the rationale for it are discussed to reinforce the workload statements in the unit outline. In relation to group assignments, the

School now requires that they be 'managed' by the unit co-ordinator. This requires all group assignments to include a group contract that clearly sets out both teacher and student obligations.

In addition to the above issues of managing student perceptions of workload, the teachers involved in the study have instituted a number of strategies to continually improve the workload balance and further reduce the gap between total workload and meaningful hours of workload. Ramsden (2003) notes that curricula design should focus on important content to encourage deep learning. For example, in the second year unit, the unit coordinator has refined the reading required. Rather than including a total chapter, the reading requirements have been more specifically identified as particular pages of text. Similar recommendations have been made for units that include significant regulation documentation such as auditing and financial accounting where previously whole standards were given as reading requirements. Whilst one might consider that this in fact reduces workload, and potentially results in a 'dumbing down' of the course, it allows scope for a broader range of issues to be considered. It also increases the time available for teachers to put accounting theory and technical content into a more interesting 'real world' context. This has been the case in the second year unit where the unit has been redesigned to incorporate a customized e-learning tool that provides continuous assessment with automatic feedback to students. The aim of the e-learning tool is to enable students to develop their problem solving and application of principles skills in a simulated 'real life' assessment set. This has led to a more focused approach to learning and applying course content, promoting a deep learning approach. Student appropriate workload ratings in the SETs for the second year unit have moved from 61 per cent for the semester when this study surveyed students, to 87 per cent two years later (Bolt and Flynne, 2009).

In the third year unit where students had a large, case study group assessment late in the semester, the unit coordinator has redesigned the assessment to spread the group work over the semester. Instead of a major written report, the emphasis has shifted to focusing on the group presentations on issues highlighted by the case study. This has reduced student stress although student feedback indicates that more curriculum redesign needs to be undertaken to create a constructively aligned curriculum. In response to the first year student dissatisfaction with the voluntary workshops, the unit coordinator created structured mentor teaching roles for students to approach teaching staff with their learning problems. These mentors have proved successful, with students no longer calling for a return to traditional tutorial sessions. In conjunction with the above initiatives, the School has actively encouraged teaching staff to consider both the type and amount of feedback given to students, specifically to strengthen the learning process associated with assessments. The School has also embarked on a teaching and learning professional development programme that will eventually result in all teaching staff receiving training on developing constructively aligned curricula. Another approach that has been adopted in the School is the development of discipline work groups across the whole of the accounting major. The three areas, Financial Accounting, Management Accounting, and Auditing and Information Systems have been established with a discipline head. These groups work together to ensure that there is an overall plan for the curriculum design within the discipline areas to reduce a lack of continuity between the years of study and to ensure that overall content covered in the major is appropriate and align with accreditation requirements. Industry feedback has also been sought on the appropriateness of the curriculum. These groups also consider the assessment in each of the discipline areas. All three discipline groups are brought together under the Director of Teaching and Learning where the overall major is mapped to ensure there are no 'gaps' in the curriculum and that the university graduate attributes are addressed in the

accounting major. Changes to the unit have been formalised and include changes in the syllabus, changes in assessment breakdown, changes in unit learning outcomes and changes in texts. The mapping of the accounting curriculum is extended to a mapping of the course, incorporating all units the degree. A university wide approach to the mapping of degrees to ensure alignment with designated graduate outcomes has re-enforced the importance of an aligned curricula within the School and also improved approach towards compliance.

All of these strategies we believe have reflected positively on students attitudes to workload within the School. Student attitudes to workload as assessed by a university wide teaching evaluation instrument (eVALUate)³ indicates growing student satisfaction with workload. eVALUate workload satisfaction for semester 1, 2006 was 78 per cent. Subsequent to the implementation of the programmes discussed above, the School has achieved workload satisfaction results over 80 per cent in almost every semester since, achieving a high of 89 per cent in semester 1, 2013. These compare very favourably with the CEQ and UEQ data presented earlier that provided the impetus for this study and thus the implementation of programmes to remedy the problem.⁴

5.2. *Limitations of the Study*

The researchers acknowledge that this study has limitations. Generalizations based on one faculty discipline specific group, in one semester at one university should be done with caution. However, the university reflects the global trend in higher education, particularly in business schools for diverse student cohorts with strong international student presence. The second limitation of the study relates to self-selection aspect of the student responses to the

³ In second semester 2005 the University introduced a university wide, online teaching evaluation instrument referred to as 'eVALUate'. Over time this has replaced all other student evaluation of teaching instruments in the university including UEQ's.

⁴ As the CEQ data has a time lag of approximately two years we cannot compare the responses for workload at this point. Similarly UEQ's have been replaced by the eVALUate instrument and comparable data is not available.

surveys. It is impossible to know if non-response to the surveys was because of refusal to participate or indifference to the topic (Zikmund, 2000).

6. Conclusion

There is still a lot to understand about managing workload and assessment in accounting curricula. This study has been useful for assisting the School to understand the impact of teacher course design decisions, particularly in the area of assessment, on students' perceptions and their learning behaviour. This study suggests that an important part of this issue is managing student perceptions of workload along with a balanced approach by teaching staff in recognizing and acting on student concerns. Such efforts need to consider rectifying what has been described as the 'divergence between intention and actuality' because 'students respond to the situation they perceive and it is not necessarily the same situation that we have defined' (Kember and Leung, 1998). Strategies need to be developed to encourage students to work the hours that teachers consider appropriate. However, as this study has suggested, merely asking students to work more hours will not improve student learning if the curriculum and assessment are not well aligned.

The mismatch between hours students spent studying and their reported perception of meaningful learning suggests that there could be a number of problems. The curricula of the accounting units may need improvement to ensure the learning outcomes, learning experiences and assessments are better aligned and/or that teaching staff expectations are communicated more clearly. This could include developing more engaging learning experiences to help motivate students, such as the e-learning tool implemented by the second year unit coordinator. Further by including additional characteristics, such as those identified by Biggs as presage factors, which students bring to their studies, we have extended the

existing literature by providing a greater understanding of factors that should be considered when attempting to explain factors that impact student learning.

7. Areas for Further Research

A number of areas for further research emerged as a result of the findings in this study. Further research on measuring students' meaningful learning in the context of accounting course delivery could better inform teachers' approaches to curricula. The findings in this study suggest that there are also concerns for students for whom English is a second language. Issues of course and curricula design need to be considered within a framework that takes into consideration the diversity of the student cohort.

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School of Accounting Student Workload Journal - Semester 2, 2006

Week no.11 Beginning: 9 October 2006

Demographic information for the workload study

The School of Accounting is aiming to refine the amount of work given to students and the feedback that students receive. To obtain the necessary information we are conducting a workload study which requires feedback from students. We would greatly appreciate your efforts to complete the following questionnaire.

Your participation is voluntary and your comments will be **totally confidential.** The feedback you provide will assist the school to determine appropriate levels of workload in your subject. Only aggregated data will be used so **no individual responses will be trackable**.

Instructions

We are asking for your valuable input to track your **workload**, in **this particular unit**. **Workload** means the amount of time you spend attending class, preparing for tutorials, reading, doing practice exercises and any other activities or tasks. This means you need to keep this "journal" with you and fill it out throughout the week **accurately and honestly** as you do your tasks. The completed journal (these sheets) will be collected in class.

Please fill in the actual time you spent studying each of these activities

Learning topics	Educational activities and assessment preparation	Assessment task Yes/No	Actual time in hours to complete work
Week 11 beginning 9 October Accounting Cycle III - End of Period Adjustments - Worksheets	Readings: Chapter 4 pp. 132-165 Problem 4.8 Problem 4.10 Problem 5.2 Additional questions 15 and 16		Lecture: Tutorial Questions: Review Tutorial Solutions: Reading: Project: Worked Example: Practice Questions: Others:

	Problem 5.2 Additional questions 15 and 16			Practice Que Others :	estions:		
In relation to your educational activ following questions:	rities and asse	essment	prepara	ation plea	se answe	er the	
How many hours this week (excluding cl	lass time) did yo	ou spend	studying	g?			
How many hours of the total hours you slearning?	spent this week	in the un	it's activ	vities promo	oted mean	ingful	
		More		About the same		Less	
Compare with other units, the amount of spend for this unit is	time you c						_
		NOT APPLICA BLE	Strongly Disagree	Disagree	Neither Disagree nor Agree	Agree	Strongly Agree
The workload is reasonable for achieving learning outcomes	g the unit's						
Access to the assessment task instruction	ns was easy		\bigcirc		\bigcirc		
The instructions for the assessment task/s	s were clear						
6. Additional comments about worklo	oad in this unit	:					

Table 1. Descriptive data: means and standard deviation for independent variables^a

	Language		Residency		Enrolment type			Year of study			Week		
	EFL ^b	ENFL°	Australian	International	Full time	Part time	First year	Second year	Third year	Graduate	First half	Second half	All
	n=929	n=1185	n=1010	n=1249	n=1964	n=190	n=341	n=480	n=1350	n=126	n=1360	n=937	n=2297
Total hours studied mean	4.75	5.85	4.67	6.00	5.40	5.16	3.86	6.11	5.41	6.67	5.86	4.76	5.40
S.D.	3.18	3.59	3.08	3.71	3.53	3.22	3.25	3.20	3.53	3.68	3.41	3.53	3.50
Total meaningful hours													
mean	2.52	2.83	2.47	2.95	2.71	2.98	2.26	3.27	2.66	2.83	2.61	2.93	2.74
S.D	1.96	1.94	1.87	2.07	1.99	2.08	2.12	2.14	1.88	1.89	1.79	2.00	2.00

^a All data measured in hours.

^b EFL= English as a first language,

^c ENFL= English not first language

Table 2. Pearson correlations among variables

Variable	1	2	3	4	5	6
1.Total hours	-					
2. Meaningful hours	0.58**	-				
3. Residency	0.19**	0.12**	-			
4. Native language	0.16**	0.08**	0.51**	-		
5. Enrolment type	-0.02	0.04*	-0.29**	-0.18**		
6. Year of study	0.13**	0.02	0.17*	0.15**	-0.07**	
7. Weeks	-0.16**	0.08**	-0.09**	-0.10**	0.10**	-0.18**

^{**}p<0.001, *p<0.10

Table 3. Multivariate regression for variables predicting total hours of study (n=2051)

Variable	В	SE B	β
Residency	0.99	0.18	0.14***
Enrolment type	0.58	0.29	0.05*
Native language	0.47	0.17	0.07**
Year of study	0.34	0.09	0.08***
Week	-1.03	0.15	-0.15***

^{***}p<0.001, **p<0.01, *p<0.05

Table 4. Multivariate regression for variables predicting total meaningful hours of study (n=2051)

Variable	В	SE B	β
Residency	0.48	0.10	0.12***
Enrolment type	0.50	0.17	0.07**
Native language	0.13	0.10	0.03
Year of study	0.03	0.05	0.01
Week	0.30	0.09	0.07***

^{***}p<0.001, **p<0.01, *p<0.05