Institute of Education

University of London

Doctorate in Education (International)

THESIS

The Time-Use of Distance Learners: A Study of International Postgraduate Students Engaged in Professional Career Development

Research by

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October 2010

ACKNOWLEDGEMENTS

In completing this thesis I owe a debt of gratitude to many individuals. In particular I owe thanks to those time researchers who have passed along this road and whose body of work has provided insight, inspiration and solutions in completing this research. These include many names, but most notably Barbara Adam, Jonathan Gershuny and William Michelson.

Within the Institute of Education, Andrew Brown has supported and supervised me throughout the degree, and his friendly, enthusiastic encouragement has sustained me during the good days and less good ones. Similarly, Anne Gold, Charlie Owen and Cathy McSweeney have all contributed the warmth and support that has made the whole experience a pleasure. Particular thanks go to Harvey Mellar for his valuable comments on the proposal and draft, and to my companions on this journey - the students who started the doctorate with me in 2003 and whose friendship and camaraderie has made every visit to London inspiring.

This thesis would not have been completed without the tolerance and encouragement of my colleagues within the College of Estate Management, and support from the chair and members of its Board of Trustees. Particular thanks go to Frances Plimmer for her comments on my draft, to Maurice Beard for guiding me through the theories of economics, to Pauline Makepeace for correcting my errors, and to the Principal, Ann Heywood, for her encouragement and patience when this work over-ran time.

My final thanks go to my wife, Stella, and son, Tom, without whose sustained love and forbearance at losing me to a computer almost every weekend this work would never have been finished. I dedicate this thesis to them, and to my grand-daughter, Nuala, whose birth during this research added extra stimulus to complete it.

ABSTRACT

Thesis Title: The Time-Use of Distance Learners: A Study of International Postgraduate Students Engaged in Professional Career Development.

This thesis investigates how internationally located distance learning students allocate their time, and in particular seeks to establish whether an optimum time for study exists and the factors that influence this. It examines mature students working in the real estate and construction sectors studying for a postgraduate qualification that enables career progression to membership of a professional institution. It confirms that time use is individual and that, while average times exist, there are no average students or cohesive groups that conform to a central tendency. Through following an inductive approach the research argues for the definition of a standard student as one whose time use preferences for integrating study into their working week fit within a range of hours. The conclusion proposes that the range of hours and variation in the opportunity cost of study set boundaries for a temporal zone within which the standard student is found; and which differentiates these from non-standard students whose constraints place them at the extremes of time use.

The research used a 24-hour pre-coded diary, integrated into a learning activity, and kept by students for seven days. The diary recorded time during a module at the start of the students' first year, and was supplemented by pre and post questionnaires. Changing patterns in time use were identified through a follow-up longitudinal survey conducted over the succeeding eight months. The initial data analysis used quantitative methods to summarise the data that provided a general portrait of time use, but also demonstrated the limitations of conventional statistics in illuminating and developing satisfactory explanation for human behaviour. In consequence a more qualitative analysis was undertaken using both aggregate and disaggregate techniques developed within time use practice to explore the issues and factors.

The thesis identifies the principal factors affecting time use and discusses these with reference to relevant research and other literature, and to associations that are apparent from the time use analysis. The complexities of time use are recognised and discussed in relation to zero sum time accounting, time management and both microeconomic and rational choice theories. The thesis concludes by proposing how the concept of a temporal zone can be used to help standard and non-standard students manage their time by designing study as layers within bands of time.

RESEARCH DECLARATION

I hereby declare that, except where explicit attribution is made, the work presented in this thesis is entirely my own.

Signed: W.N. McNeill

(William Neil McNeill)

Date: 25.11.10

WORD COUNT

The word count (excluding appendices and references) is **52,772** words.

[The increase in word count above the 45,000 word limit has been approved by the dean of the doctoral school and the examiners of the thesis]

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GLOSSARY AND ACRONYMS

APC	Assessment of Professional Competence.
CEM	The College of Estate Management.
GDP	Graduate Development Programme.
GMT	Greenwich Mean Time.
IMC	Information Management and Control.
IFS	Institution Focused Study.
OS	Ordnance Survey.
Question*mark*	Commercial Assessment Management System.
RICS	Royal Institution of Chartered Surveyors.
Survey Monkey	Commercial Online Survey Package.
URI	Unique Research Identifier.
VLE	Blackboard Virtual Learning Environment.

Chapter 1

INTRODUCTION TO TIME

"Time is change; we measure its passing by how much things alter."
(Nadine Gordimer, The Late Bourgeois World)

Over recent decades major changes have taken place that have transformed the manner in which distance education is designed and delivered globally. These have been particularly significant for students seeking membership of the professional institutions as workplace practices, issues of work-life balance, the expansion in mobile technologies and increased online communications place more and more pressure on an individual's time. This chapter introduces the main contexts explored within this thesis relating to daily life, part-time study and a global society that make time an important focus for research.

THE PROBLEM WITH 'AVERAGE'

Time is a critical factor for distance learners combining study with full time employment and busy social lives, a fact which was highlighted in the Institution Focused Study (McNeill, 2007) that examined retention issues within the College of Estate Management. As an independent UK provider of distance education courses worldwide for the real estate and construction professions retaining students is especially important given it is self-funded from course fees. The main conclusion from the study was that lack of time is the main factor that leads to students dropping out; but that time is a complex issue with many dimensions combining to cause time pressures. This complexity does not appear to be fully appreciated by higher education authorities who, by virtue of the larger numbers, tend to focus policy on the educational experience of traditional full-time students. This is illustrated by the Framework for Qualifications of the European Higher Education Area, developed through the Bologna process. Within the proposed national frameworks for compatible credit systems there is an expectation that credits will be described in terms of learning outcomes, level and associated workloads. The description given for workload is 'a quantitative measure of all learning activities that may feasibly be required for the achievement of the learning outcomes' (MSTI, 2005, p46). In parallel with this, time is considered to be that 'required for an average student to undertake the workload' (MSTI, 2005, p46). From these descriptions two significant assumptions are clear. First, that all learning activities can be identified and quantified for the time they will take to complete. Second, that the average student and the time such an individual has available for study can be defined. Both of these present difficulty for the provider as each assumes that there is consistency in students and their available time.

Within the context of conventional higher education defining an average student can be realistic if students enter full-time university courses straight from school. In this case they can be identified by characteristics such as age, knowledge background, academic competence and

to be matrimonially unattached. In this construct they share the common characteristics of being time rich but financially poor. Over the last twenty years such a definition for a standard student has been challenged as government initiatives for widening participation and increased student enrolments have resulted in more students entering higher education from wider socio-economic backgrounds, a diversity of schooling and differing ethnic origins and cultures. There is now a greater spread of ages as more school leavers take ever longer gaps before continuing with study, and older students return mid-career to complete qualifications. Although the contemporary full-time student may be considered to retain the common characteristic of being time rich, many are becoming increasingly time impoverished as term-time employment is required to offset reducing government financial support and rising course fees. In this respect full-time students are finding themselves converging with the part-time and distance learning student. These students have always experienced reduced opportunity for time to study due to employment demands. They have traditionally come from a wider age range with longer breaks between periods of education. Of greater significance is that many have families, introducing social and domestic demands on their time that the full-time student does not normally have. Their employment does, however, mean that financially they are relatively rich but their job and other commitments make them time poor. Financial and time wealth fluctuates as economic, social and technological conditions change and with each downturn in the economic cycle jobs become rationalised placing more pressure on the individual's available time for study. Society changes and this introduces further pressures as expectations of how spare time could or should be distributed varies. This has been more evident in recent decades as the information society has transformed into the online society resulting in greater use of technologies such as the Internet and mobile communications. Taken together it is increasingly difficult to predict what characterises an average contemporary student and how much time such an individual has available for study compared to equivalent students a decade ago. To answer this provides the main aim for this research as it is the feasibility of defining average study time and establishing what a realistic expectation of the time commitment should be for working distance learning students that is critical. If initiatives such as Bologna are to succeed then a fuller understanding of what constitutes time and how time use varies is necessary. Although time use studies have been in use for over forty years in respect of national populations little has been published in the last 10 years in respect of using the technique to investigate the time use of mature distance learners thus prompting this research to be undertaken.

TIME AND DAILY LIFE

Change in society tends to be an incremental process and may not be immediately apparent. Only when world changing events such as international conflicts or leaps forward in technology occur do individuals notice that their lives have altered. In this respect Gershuny (2000, p90) observes that much of daily life is an habitual sequence of activity which Large (2008, p90) refers to as a 'ritual glued together by time'. Individuals enjoy the things they do and avoid those

they do not with the result that choice is replaced by routine in work, rest and play. Balancing these has become more crucial in recent decades, however, Adam (1990, p95) and Fisher and Layte (2004) caution that focusing on single aspects of time, such as work, risks excluding all other aspects that may have a bearing on people's lives. Time is something that 'people budget, use, allocate, spend, plan, sell or save' thus is both a measure of quantity and a resource to be measured' (Adam, 1990, p103) and used effectively and efficiently. The problem that Arthur and Tait (2004) identify is that although time to study is an essential input into the learning process, little is known about how adults manage time constraints whilst working and studying. What can be accepted is that the essential properties of daily time, as summarised by Goodin et al. (2008, pp3-5), are:

- everyone has 24 hours in a day so time is inherently egalitarian and a natural metric for social comparison;
- time is a scarce resource relative to demand;
- time is a universal 'good' as it is a necessary input into anything a person does;
- time must be given to bodily necessities such as eating, sleeping and personal care;
- time is needed to earn to meet financial needs;
- time is necessary to meet household needs such as cooking, cleaning, childcare.

This provides a statement of the basic facts of life and primary constraints, but does not consider where connections in time use may occur and how these may influence time allocation. To clarify these in relation to study it is useful to examine Juler's interactional network shown in figure 1. This describes the different interactions that a distance learning student has with the various components of a distance education system. Juler developed his network in relation to discourse and suggested that the components that make up a student's life events are domains that are linked and sit within zones of interaction formed as concentric circles. At the centre is the student's intimate zone which is their personal world. Outside this the effective zone is their everyday world of contacts and the nominal zone is the world at large. Each solid connecting line in the network represents a student's potential time commitment that collectively sums to the total hours per day or week. What was apparent from the IFS retention research (McNeill, 2007) is that the factors cited as causing student drop out more or less followed Juler's zones from the centre outwards. Time was the collective factor, however, those to do with the student's intimate zone (workplace, personal and domestic) were ranked as the main reasons. The lowest ranked reasons for drop out were distance learning itself, course issues and assessment, all of which are factors that tend toward the outer effective zone. The feedback from students indicated that their reason for dropping out was not due to a single cause but a combination of factors within their personal intimate zone. Consequently, as the demands of work, social life, family responsibilities, illness and so on increased, these caused time pressure to build within the intimate zone leaving less time for study. This indicates that an objective for this research should be to explore the relationship between the main activities within a student's week and how these may influence the time they give to their studies.

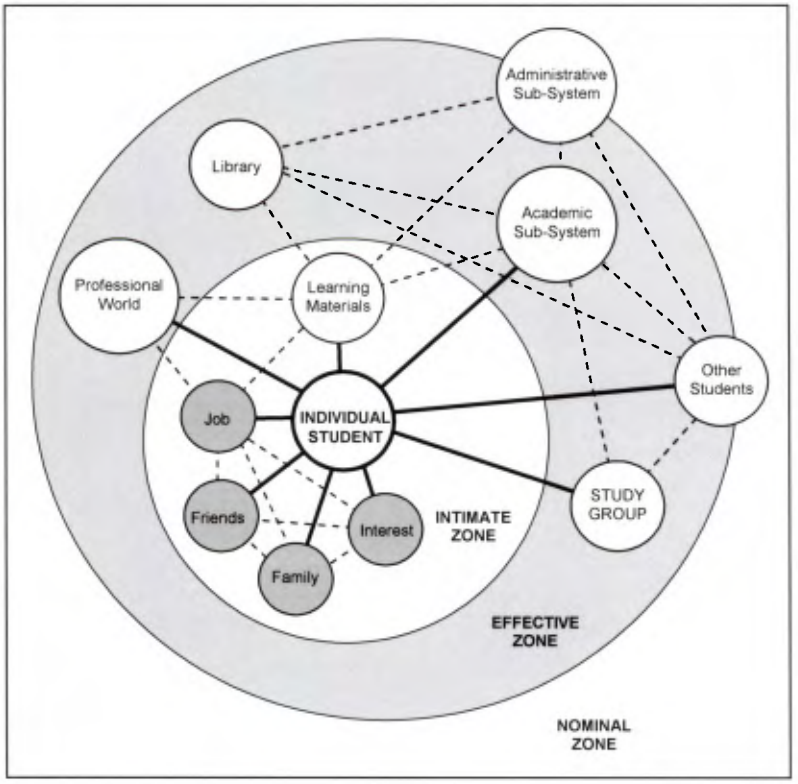


Figure 1: Student Interactional Network (adapted from Juler 1996)

Juler's network has limited use because it was defined in the period before the expansion of technology for communicating and exchanging information. This expansion has introduced new domains and significant shifts in the structure and interactions that occur within the network, particularly with the extension of distance learning into e-learning and online study. It does, however, provide a useful (if dated) representation of the complexity of managing time commitments that part-time students face.

TIME AND PART-TIME STUDY

The relevance of this research to current practice is emphasised by the Universities UK report (2006) that records that 40% of higher education students in 2004 (amounting to 840,000 individuals) studied through part-time or distance education. What is concerning from this report is that almost four in five students struggled to juggle part-time study with their other commitments and around two thirds could not devote enough time to studies. These issues were exacerbated for two thirds by unrealistic expectations about the amount of time needed to complete study, and inadequate time management and study skills. For these and other reasons the report concluded that 'there is no such thing as a typical part time student' so placing this sector of education in conflict with the aspirations of the Bologna framework. A similar situation is found within the College whose annual enrolment of over 4,000 students come from diverse backgrounds in respect of age, gender, ethnicity, location and disability. Entry to courses is based on minimum prior qualifications and competence in English as the language of instruction. Students come from all sectors of industry and from most regions of the

world. Although the common feature is their employment within real estate or construction, they may be studying for sub-degree, degree or postgraduate qualifications. They may be employed as office support staff, trainee practitioners or qualified professionals and consequently come from all levels of the organisation. Their work experience may be short or long and their academic experience may be minimal or extensive. They may be working in their country of birth or as an expatriate. In consequence no individual or cohort of students can be considered as typical and their availability of time cannot be assumed. What can be anticipated is that College students have a strong financial incentive for continuing study for career development. This reflects the wider business environment in which the dominant mode of economic operation has shifted from 'reciprocity to exchange' (Gershuny, 2008). Greenwood and Stuart (2006, p104) describe this flexible economy as characterised by 'uncertainty requiring constant updating and reforming of the skill base' making lifelong learning 'a means of survival' for individuals, companies and economies alike. Alongside this Jordan et al. (2008, p135) point to the importance attached to Continuing Professional Development for members of professions to maintain their personal and professional competencies; this is essentially the mission of the College. A significant feature of this flexible environment is the choice that an individual has in how they use their time. If this is used to increase their knowledge, skills and enhance experience it is considered as increasing their human capital and potential to improve earnings (Kooreman and Wunderink, 1997, p180). Continual investment is thus required to keep skills and knowledge at a constant level and the time and money spent is considered a worthwhile investment. In this regard College students do not dispute the fact that they need to invest time in vocational training but, as with other students investigated, they do experience conflict with other areas of their lives such as family and personal time (Holm, 2007). To alleviate this Smith (2003) suggests that students expect to exercise 'client control' over the flexible delivery of content, time, pace and place of learning. This is characteristic of 'individualisation' which Landwerlin (2006, p170) describes as a person's 'increasing freedom to construct their own life projects' as a result of a reduction in social control over their lives; effectively the freedom to make their own choices. If individual students are as diverse as this suggests then an objective for this research needs to consider whether an optimum weekly study time exists that can accommodate a range of preferences.

TIME AND A GLOBAL SOCIETY

The social reference prompts consideration of the context in which life is lived and how this may impact on an individual's use of time. For most of the 20th century modern society has been characterised as one that developed out of the pre-modern society of the early 19th century. This was founded around cottage industries with daily life organised around the seasons, the amount of daylight and local needs. This simple existence changed with the spread of accurate timepieces such that, as Adam (2004, p113) observes, 'the clock quite categorically changed the meaning of time' by affecting the 'control, the timing, the tempo and temporality of life'

(Adam, 1995, p28). It can be argued that clock technology was the catalyst that changed society as it was integral to the industrial revolution that transformed work from an irregular task orientation to a modern timed labour orientation. The resulting shift from rural cottage workshops to urban industrialised factories saw a steady migration of workers and their families into towns and cities as technological advances in manufacturing and transportation increased the demand for goods. To meet demand the Taylorist[1] industrialisation of work and time introduced 'the restriction of production to a limited number of standard products made using automated, mass-production methods, with division of labour to carry out specialised tasks' (Raggatt, 1993, p21), coining the industrial sobriquet for society. Taylor's principles were adopted by Henry Ford and the Fordist mass production system has since become recognised as emphasising power, accuracy, economy, system, continuity and speed (Wann, 2003). Time efficiency has not been without its critics with Marx regarding clock time as commodified time as 'every commodity ... is equal to the objectification of a given amount of labour time' (Marx, 1857, cited in Adam, 2004). This mirrored Benjamin Franklin's 1736 concept of 'time is money' which continues to permeate daily life as 'no aspect of social existence is exempt' (Adam, 2004, p127) including education. From the early days of postal correspondence Fordist style practices were introduced to simplify and increase the efficiency of exchange between student and tutor. This 'instructional industrialisation' (Evans and Nation, 1989) has gradually replaced Socratic teaching with a standardised commodity that has formed the cornerstone of practice for many distance providers. This includes the College which provides its students with a standardised pack of paper-based study materials that is supported by centrally located tutors and assessed through assignments and examination. Apart from recognising differences in discipline all students are provided with the same pack irrespective of background, culture or need. Although founded on sound economic principles, the current difficulty that emerges is that an approach that has replaced personal and individualised teaching with teaching that is 'standardised, normalised and formalised' (Peters, 1998, p110) may no longer be entirely appropriate for the knowledge hungry, time poor students of current society. The industrial approach worked well where a status quo existed and everything could be standardised, however, its viability must be questioned in a society dominated by information and technology where individualism and choice predominate, and the expectation is for novel products. Anthony Giddens characterises this late modern society as a runaway 'juggernaut' (Giddens, 1990, p139) and as a world in which ever more sophisticated technology results in increasing rates of social change and lifestyle. In this respect Alonso (2006, p156) argues that the Fordist model of organised production has been replaced by a more diverse and highly fragmented division of labour in which flexibility, speed, adaptation and change have become the new production paradigms. Unlike the integration of Fordism, the organisational dynamics of post-Fordism are: fragmentation, individualisation, virtualisation and globalisation; all of which are likely to impact on College students including those located internationally. Distance education has recognised that the concept of Fordism based on rationalisation is no longer consistent with modern

[1] Frederick Taylor is credited with devising the system whereby production was broken down into component parts and the efficiency of each improved by observing workers through time and motion study.

practice, and has moved through a neo-Fordist approach toward a post-Fordist one. This aims to minimise mass-production and use technology to deliver and support products on-demand or just-in-time. Such a radical rethinking of the teaching / production process to make it more cost and time efficient raises questions as to whether equal attention has been given to the learning / consumption process. This is of particular relevance within a globalised context as 'the demands of labour markets are a function of global activity so education is shaped by globalisation' (Perraton, 2000, p152). Given the College's international recruitment this indicates that a further objective for this research must be to investigate the extent to which international students may differ in their time use compared with UK ones. A significant feature of globalisation has been the colonisation of time resulting from the standard world clock leading to what Nowotny (1994, p10) describes as 'simultaneity'. However, for clock time to exist and be measurable there has to be duration, but since the late 20th century any opportunity to control time has reduced or been eliminated due to the lightening speed of communication and data transfer. 'Without duration there is no before or after' (Adam, 2004, p146) so time control is meaningless resulting in 'entirely new temporal limits and possibilities that require the restructuring of socio-economic relations' (Adam, 2004, p148). The message that this gives is that study has become a global multi-faceted commodity that is shaped by individual expectations but constrained by life events. Barnett and Coate (2005, p164) argue that such rapid and instantaneous changes mark the 21st century as a world of cognitive and experiential super complexity. If the rational universal approach of the modern society is being replaced by one in which subject disciplines are more 'fragmented and taught more reflexively, pragmatically and experientially' then offering a 'single progressive linear pathway' (Jarvis et al.,1998, p19) is no longer feasible. This makes it of paramount importance that the parameters are identified as, to succeed, students need to be fully committed and actively engaged in the tasks undertaken. Barnett and Coate argue that this can only happen if they are accorded space which by extension must include time. Consequently as well as examining the boundaries for time an objective for this research needs to be to investigate whether within this fragmentation there are groups of students whose use of time is similar.

CHAPTER CONCLUSION

Laurillard (2008) describes students as individual's 'whose learning journey takes them across the boundaries between school, college, work and university'. Referred to as 'time tracks' by Weigert (1981) these include journeys through parenthood, career, sickness and death emphasising the biological, cognitive and socio-cultural nature of time (Jordan et al., 2008, p113) that makes it complex. This chapter recognises that the main day-to-day activities that consume a distance learner's time are unlikely to have changed in recent decades but that the factors that influence the amount and allocation of time potentially have. Effectively the journey is in the same direction but the route has deviated, and a significant factor influencing this is the exponential growth in the use of technology across all walks of life. The challenge that

faces the College and other distance providers is ensuring that its students are offered study that matches their needs, abilities and available time. This means reflecting society as it exists or will be, and not as it was. It means adopting new practices and ways of delivering learning that harness emerging techniques and technologies. It means knowing the time constraints of the target students and not making assumptions based on outdated student profiles. This highlights that practice is a fast moving target and underscores that adherence to averages, as implied by Bologna, may not provide satisfactory solutions due to the diversity of the human species. If 'a challenge of the 21st century is that time has become filled up' (Barnett and Coate, 2005, p167) then understanding time and how it is used becomes more critical as it is 'ubiquitous in the lives of human beings' (Michelson, 2005, p1).

Examination of the interactional network highlights the need to consider the student both as an individual and as a member of a group. If their milieu influences the choices that they make in allocating time to different activities then this needs to be understood in the context of the main daily activities that can be anticipated as:

Sleep	Domestic
Social	Leisure
Work (and Travel)	Internet

To these can be added study as the extra activity that has to be woven into the new student's normal week, and for which he or she has to find slots of time. Given that activities vary in importance, it is likely to be the less important ones that are sacrificed to make time. Therefore creating time for study will require the student to make difficult decisions about their lifestyle both in the long and short term.

This chapter has considered the activities that consume time and their relevance to working students. It has established a rationale for the research with an aim **'to establish whether it is feasible to define average time for study and what a realistic expectation of the time commitment for working distance learning students should be'**. From the discussion of time in relation to daily life, part-time study and a global society four objectives for the research have emerged.

1. To identify whether an optimum weekly study time can be identified.

2. To determine whether relationships exist between the main activities within a student's week that influence the time they give to their studies.

3. To establish how different groups of student may vary the time given to different activities.

4. To establish whether international student time use differs from that for UK ones.

Chapter 2 considers in greater detail the literature related to time in the context of distance education and the factors that influence the individual student and the design of study activity.

Chapter 2

TIME AND STUDY

"There are some things which cannot be learned quickly, and time, which is all we have, must be paid heavily for their acquiring."

(Ernest Hemingway, Death in the Afternoon)

Chapter 1 has reflected on the broad changes in society and daily life that have become evident in recent decades. Education has also seen changes which Laurillard (2008), amplifying Jarvis et al. (1998, p19), summarises as introducing greater personalisation, flexibility, collaboration, staff development, and partnerships. In particular she draws attention to flexibility as enabling learners to study where and when is best for them, and to a choice of curriculum that is learner oriented rather than provider lead. This is in keeping with Peters (2002, p101) who observes that the stock-piling of knowledge and skills for future vocational and private use that characterised industrial society is being replaced by learning on demand in the post-industrial era. Consequently this chapter examines the literature that provides an insight into time and study in late modernity keeping the broad focus on individuals, their time availability, their requirement for study time and the decisions they have to make.

SPACE, TIME AND DISTANCE EDUCATION

The inter-relationship between space and time has been known to distance educators for over 30 years. In describing his theory of transactional distance Moore (1972) stated that 'distance education is not simply a geographic separation of learners and teachers, but, more importantly, is a pedagogical concept ... describing the ... relationships that exist when learners and instructors are separated by space and/or by time'. This offers a fundamental definition that Evans (1989) extends in portraying distance education as 'choreographing a myriad of personal and collective movements in time and space which may be temporal, social or economic as well as physical'. These references to education as a social activity that occurs in space and through time are important as they encapsulate much of the step changes that have resulted from the globalised expansion of the digital world. These are characterised by the 'technological acceleration and compression of time and space that allow people to communicate throughout the world interactively' (Allan, 2007). Although acceleration and compression are increasingly ubiquitous in daily life, Marsden (1996) is critical of distance theory that concentrates on space to the exclusion of time. He argues that, although students are 'temporally discrete', they may be in different time zones and engage with course materials at different times. Echoing Adam (1990, p95), he cautions that abstracting students from their social contexts falsely assumes that they experience space and time as if they are 'atomised' islands with time separating them. It is therefore surprising that, as Jarvis (2006, p14) observes, 'few theories of learning have tackled time, although many have discussed aspects of space'. This deficit may be more

attributable to full-time education as Moore demonstrates that distance education recognised the relationship between time and space much earlier than most social scientists. They largely neglected this until the 1980s with Giddens (1979) declaring that 'most forms of social theory have failed to take seriously enough not only the temporality of such conduct, but also its spatial attributes'. He has since argued that a major reorganisation of time and space in social and cultural life has taken place, which he terms time-space distanciation and disembedment. 'Distanciation' refers to the increased use of communications technology that results in 'fostering relations between 'absent' others, locationally distant from any given situation of face-to-face interaction' (Giddens, 1990, p.18). Essentially this means the 'disembedment' of social relations from local contexts and rearranging them globally across indefinite spans of time and space. This conceptualisation of a society in which interaction occurs at any time and in any place resonates with distance education. Despite the freedom and openness that this conceptualisation represents, Giddens (1984, ch5) recognises that spatial-temporal constraints exist, which he identifies as the indivisibility of the body; the finitude of lifespan; the linearity of duration and sequence; movement in space always being movement in time; and the finite packing capacity of time and space. The issue of linearity is well understood by distance educators but it is the finite packing constraint that is most pertinent to this research as it recognises that in spite of any desired flexibility there are limits to time use. As described by Moore (1972), distance education is the separation of student and tutor in time and space so the radical transition from an industrial to an information society holds important implications. In Peter's view (2002, p167) 'the traditional structure of conventional universities is becoming brittle' and is part of a general process which is changing society. He considers Gidden's space-time theory of increasing distance as predicting the virtual university. This is taken up by Jarvis (2004, pp221-223) who translates Giddens' features into the education domain. Disembedded mechanisms, he suggests, implies a process of extracting the specific localised social relations and re-implanting them within a global context of time and space. By the same token the educational offering becomes a commodity 'guaranteed to provide specific learning for the purchaser and supplied using expert systems to produce and service the offering' (Jarvis, 2004, p222). The result is that the concept of an institution built of bricks and mortar is conceivably replaced by processes and systems that define a virtual one that requires no campus or geographic location to deliver its tailored product. It is in constant transition with both it and the commodity kept under constant scrutiny through the examination and reform of social practices that reflexivity entails. If fully realised, this transition is more radical for conventional education as it converges towards distance education, and in the context of the College supports the migration to an enhanced online mode of active study that has been pursued in recent years.

TIME AND THE INDIVIDUAL

Living in a society that is more organised and distanced from everyday life suggests individuals are less constrained by the demands of organisation such as having to attend for

work or lectures. They have, according to Jarvis (2004, p223), become 'free to follow their own pursuits at their own time and in their own way so have become self-determining individuals'. The autonomy that self-determination offers is not new within adult education. McVay Lynch (2002, p34) highlights that adult students bring a rich reservoir of knowledge and experience to their learning and expect to be treated as mature, thinking individuals who accept responsibility for their own learning. Moore (1972) argues for learner autonomy which he defines as 'the extent to which ... it is the learner rather than the teacher who determines the goals, the learning experiences, and the evaluation decisions of the learning programme'. Temporal autonomy is, by extension, being able to decide how to use time but for adult learners this may be constrained by factors such as workplace flexibility, geographical location, gender, structure of the family unit and whether children are involved (Goodin et al., 2008, pp261-262). They describe such temporal autonomy as discretionary as its use is not ordained by the necessities of life whether economic, social or biological. Whilst accepting that autonomy should be natural for adults, Knowles cautioned that many are dependent learners when they enter tertiary education so 'are typically not prepared for self directed learning; they need to go through a process of reorientation to learning as adults' (Knowles, 1970). This point is particularly relevant to distance learners who may be new to the mode of study and may also have had a lengthy break from education. In respect of international students, Kember (2007, p68) observes that distance learners in developed countries tend to be more 'mature with experience of both professional work and post-secondary education'. Their need for freedom in how they organise their study is greater due to full-time jobs and family commitments that may not easily be put to one side. In contrast he observes that students in developing countries are often younger, less mature, have fewer commitments and with limited experience of postsecondary education and/or employment. This has relevance for this research if, as a result, they are less constrained by when they can study, but, compared to their counterparts in more developed countries, are more constrained by where they can study due to the unsuitability of their home or workplace facilities. From this it can be anticipated that attitudes towards education, technology and society vary between individuals depending on their age, culture, location, circumstances and life experience. In the case of age there is a debate as to whether a generational effect exists in respect of the use of digital technology. The debate has centred on Prensky's (2001) assertion that younger people born into the digital culture are fluent in the new technology language and consequently are resistant to using 'old' technology. These digital natives are contrasted with the older digital immigrants who are familiar with the former technologies and have had to learn the new digital language. Accepting that some truth exists in this argument, the relevance for education is summarised by Murphy (2007) who suggests that native learners prefer to learn just in time, obtain instant gratification and reward, and respond to learning that is relevant, instantly useful and fun. He contrasts these with immigrant teachers who prefer to teach just in case it is needed, anticipate deferred gratification and reward, and teach to the curriculum and standard tests. Over time any actual differentiation between generations will become less pronounced, however accommodating a diversity of students with different skills, interests and preferences is still 'one of the greatest challenges facing higher

education' (Oblinger, 2003). Within distance education the tendency to higher average ages makes this a specific time factor for consideration given that Knapper and Cropley (2000, p53) identify that older students require more effort, time, reflection and opportunity to test their learning in a safe and supportive environment compared to younger students. This suggests the need for a slower pace but Shaw (2001, cited in Parkins, 2004) identifies that younger people in particular seek out 'places to live, work and socialise where the pace is fast'. The result is potential conflict for distance providers, such as the College, as they have to accommodate the variety of student needs at the same time as they are in transition to a more efficient and digitally enhanced style of design and delivery. Barnett and Coate acknowledge the digital shift but caution that the result of time compression is to 'rob students of space for their own development' (2005, p167). In this they are supported by Slattery (1995) who deplores the reduction in freedom of choice that results from an insatiable desire for more time, more data and a more rigorous curricular leaving the student a prisoner of time.

TIME BUDGETS AND DIARIES

The analogy with loss of freedom reflects the nature of time as a scarce resource that cannot be stored away for a rainy day and must be expended daily. It also highlights the need for an appropriate method for unlocking the detail of daily use of time and time budget studies have become the established means for investigating this in most industrialised countries since the 1960s (Gauthier and Furstenberg, 2002). One of the simplest explanations for the method is given by Wright (2002) who conceptualises time budgeting as a pickle jar. This involves filling an empty jar first with large rocks and then with pebbles to fill the voids between the rocks. The remaining voids are filled with sand and lastly any interstitial space is filled with water. The volume of the pickle jar is finite in the same way that there are only 24 hours in the day. Consequently the rocks, pebbles and sand represent daily activities of varying commitment, such as time for family, work and leisure, and individuals make choices as to the proportions of time (or volume of stones) they allocate to each. This allocation tends to be selected and prioritised on a zero sum basis, meaning that if more time is given to one activity, such as study, there is less time available for others. In practice individuals budget how they will allocate time to different activities in the same way they decide how to spend their money. By definition a budget must take everything into account and Chambers (1992) stresses the importance of this in arguing that research that only focuses on inputs and outputs to the education system is in danger of missing the important issues of what happens in between i.e. during the learning process. Diary method provides an appropriate instrument to explore this as it enables the collection of detailed information about behaviour, events and other aspects of the individual's daily life. According to Corti (1993) diaries provide a reliable alternative to interview method for events that are difficult to recall accurately, are easily forgotten or relate to sensitive information. They can also supplement interview data to provide a rich source of information on daily behaviour and experience. Measuring the time use of individuals is not easy and asking

individuals to keep a diary of their activity is a common approach (Kooreman and Wunderink, 1997, p6). Alternative methods are to have an outsider observe and record activity, but this is obtrusive and costly; or to interview or survey by questionnaire about allocation of time; however this is retrospective and generally inaccurate. A variation on the diary method is to issue each person with a buzzer requiring them to record their activity whenever it sounds, however, this has been criticised for changing behaviour before and after the buzz. Juster et al. (2003) compared the diary, buzzer and interview methods concluding that a hybrid approach using diaries to collect the quantities of time, supplemented with interview or questionnaire to record the qualitative nature of the activities is the most appropriate strategy. Although in extensive use the method is not without criticism. Schor (2003, p8) in particular is critical that national surveys generally only measure weekly hours and not annual ones. She sees this as limiting their ability to take account of the substantial influence on hours of work that comes from variations in the rate of unemployment or the stage of the business cycle; and further points to the potential for small diary samples to become biased and unrepresentative. Nonis et al. (2006) concur that a limitation of diary method is the assumption that recording a diary for one week provides typical data whereas recording for a longer period would be more reliable. Echoing Chambers (1992), Joyce and Stewart (1999) are also critical of the potential for diaries to only focus on productive activities to the exclusion of non productive ones. In this regard Nonis et al. (2006) observed that previous investigations of the academic performance of full-time marketing students using diaries had looked at time spent in studying or working but not time at home watching TV, shopping, sleeping etc. Despite her reservations about national surveys Schor (2003) does support the use of diary method for producing data that is superior to recall data from interview or questionnaire. Juster et al. (2003) suggest that this error is due to individuals reporting time as they experience it subjectively, and Michelson (2005) further points out the likelihood of questionnaires missing the detail. In these respects Gershuny (2000) argues that constructing a time diary is less demanding and less prone to error as their use allows the respondent to construct the time from sequences of activity. Fisher and Layte (2004) concur and, whilst recognising that time use information does not reveal the full story as people often perform several activities concurrently, so risking contamination of results, they identify this as a specific shortcoming of conventional questionnaire surveys. Unless an individual can reconstruct their actions for a day they have difficulty estimating the actual time post-hoc for any single activity. The potential for this and creative accounting has lead Chambers (1992, 1994) to question the reliability of student times recorded concurrently or retrospectively in diaries. Despite these various concerns it can be argued that the criticisms essentially relate to the boundaries for the research rather than to the method itself, which reinforces the need to obtain a complete picture, with checks and balances, if the full value of a time budget is to be realised.

In respect of outputs, Gershuny (2008) observes that the most distinctive characteristic of time budgets is their quantification of activities into a single measure that adds to the 1440 minutes of a day. Within this he identifies a hierarchy of time accounting so that at the micro level sequential accounts record the sequence of activities as the day progresses, eg get up,

eat breakfast, wash, dress, go to work. Also at the micro level the time spent on each activity can be combined to give aggregated totals of the time devoted to specific activities such as sleep or work. At the macro level, other people become involved and the balance of time has to acknowledge that time spent in an activity may require the input and consumption of someone else's time, for example that of a chef to prepare a meal. From their use of diaries to investigate further education staff time Avis et al. (2001) found that global findings derived from the data were useful, but lacked depth. They registered an awareness that a danger exists for measures of central tendency and dispersion to mask other issues. This view is shared by Gershuny (2000, p120) who emphasises the unique nature of time use studies, stressing that overall averages produce meaningless pictures, since these are across different sorts of people with quite different life circumstances. For this reason time use practice employs three approaches to provide a comprehensive analysis of diary times.

- Descriptive - combining results into a set of statistical values for each time activity.
- Aggregate - grouping results within related categories to provide broader interpretation within a period of a day, week or month.
- Disaggregate - sub-dividing results between the qualitative findings to enable a finer interpretation and more detailed explanation.

Taking each diary recording period as a standard segment of time (e.g. of 15 minutes), Michelson (2005, pp53-67) further differentiates between aggregated results.

- Time point - a specific segment of time enabling a straightforward calculation of the proportion of all individuals engaged in a defined activity at equal intervals during the day, which can be shown graphically as ebb and flow in a tempogram.
- Episode - a continuous block of time use given to a particular activity that combines segments into periods of longer duration and provide the analytic building blocks.
- Summary - the total of all episodes devoted to a particular activity by an individual within a time period such as a day or week.

Although summary may be regarded as providing a simple overview, Gershuny (2000, pp24-26) highlights the interdependence that exists between different groups of activity. He promotes a proportional matrix to illustrate an individual's time which he calls a summary of their 'Great Day'. Columns in the matrix have width in proportion to the amount of time within the day allocated to broad categories of time use, such as to non-work activities. Vertically each column is divided in proportion to the time per day spent on the different activities that make up the category such as domestic, social or leisure within non-work time. This regularity of time as a standard 24 hour metric is advantageous as it makes diaries 'normatively neutral as they assess what people do during a period of time as a matter of fact' (Michelson, 2005, p18). From an education perspective, Innis and Shaw (1997) used learning logs to discover what full-time students do in their private study time, concluding that the diary method is appropriate for 'a range of disparate and often fragmented learning contexts', thus suggesting its suitability for studying distance education students. In fact there is only limited literature relating to educational research undertaken using diary method, particularly of distance learners. Nonis et

al. (2006) put this general lack of literature and its inconsistency down to the 'complex nature of the student's world' - so reflecting their individualism.

TIME AND STUDY MOTIVATION

The perceived disposition in contemporary life for 'accentuating the uniqueness of individuals' (Øian, 2004) can be considered as characterising the shift towards individualism. In many respects this is not a new concept within distance education as Woodley and Ashby (1994), Thomas (1990, cited in Woodley, 2003) and Rowntree (1997, p47) all observe that mature students rarely form a homogeneous group and vary in their motivation, educational background and personal circumstances. Peters (1998, p13) stresses that distance learning students tend to be older and this alters the pedagogic starting position in comparison with traditional university students who do not have their greater experience of work and life so approach study with different attitudes. In the case of College students they exhibit strong extrinsic motivation to complete their studies as both career progression and enhanced financial income hinge on the qualifications they achieve. Many return to study after breaks in education and McGivney (2003) notes that individuals who make sacrifices by delaying their studies often have something to prove and display increased motivation. The 'will' to complete a course is a strong incentive to create time for study as Barnett (2007, p15) observes, however, the problem is that 'understanding the broad nature of the commitment is one thing but sustaining it each day for a long period is another' (Evans, 1994, p106). Invariably students find that allocating sufficient time to study, or balancing it against other aspects of their lives, leads to stresses. In the context of Hong Kong students, Kember et al. (1996) and Kember (2000) highlight that Chinese culture places great value on diligent study and hard work resulting in students displaying high levels of achievement motivation. Although this suggests individualism consistent with developed Western societies, Kember has since argued (2007, p151) that this does not manifest itself to the same degree, and that collaborative forms of learning continue to be highly desired in the developing world. In this regard Pratt et al. (1999) are critical of Western 'egalitarianism' as being at odds with Chinese culture and style of learning. Along with Helmke and Tuyet (1999) and Kember (2000) they stress the strong sense of loyalty to family and social groups that Asian students possess such that their motivation for academic success is a means for social as well as economic advancement. Helmke and Tuyet point to this as a reason for their comparative study showing that Vietnamese students spend more time studying both in class and at home than German ones. This serves to demonstrate that time is a dynamic entity whose use depends on the individual's personal attitudes, values and desires. For instance, even when time is available, motivation to study can be adversely affected by lack of relevance and/or reward. Evans (1994, p28) points out that 'learners can be remarkably resilient about their pursuit of education, however, they are not very resilient to education that they don't like.' In the same vein, Case and Gunstone (2003) describe interviews with engineering students that found that a student's decision on whether they had time for something rested on whether the task

counted for marks and for how many. The perceived purpose and relevance of study thus influences a student's orientation to study and whether they choose to engage in learning or not. In effect they make a 'quality-quantity trade-off' (Fogarty, 2008) in their approach to what they study which may change over time as their personal life or career need changes. This continuous interaction is especially true for working students with business experience and a strong goal orientation who look for the gains that each element of study will yield. In effect they conduct a cost / benefit analysis before deciding when, what and for how long they will study. Lockwood (1998, p137; 2005) summarises the benefits as the gains that result from study of course topics; personal learning and self-development; and learning from tests or assignments. The major cost is the consumption of study time which, if insufficient, may force the student to skip study, feel inadequate and generally have a poor learning experience. This emphasises the need for study to be beneficial but also highlights that time for study is not limitless. This is stressed by Kember (2004) and by Fogarty (2008) who believe that students are unconscious budgeters of time, and place a ceiling on their effort which is not expandable. In this respect it is not just the availability of time that constrains study but the volume of study expected within a given period. Lockwood (1998, p61) highlights that there is often a 'difference between the hours that institutions specify and how much time students are willing to devote'. The worst case scenario is that the overall time costs of study outweigh the benefits, causing the student to drop out so reinforcing that 'realistically timed study retains students' (Chambers, 1994). Research into independent study has mostly focused on its relationship with class contact time for full-time students. Using diaries, Vos (1991) analysed the influence of the learning environment on the study behaviour of Dutch full-time students. He found that total study time per week is fixed and that there is an inverse relationship between contact time and independent study time. Consistent with Hale (1964), Vos (1991) and Kember et al. (1996), Kember and Leung (1998) also found that independent study time decreases as contact hours increase but additionally found that class hours contribute more to perceptions of study overload than independent study hours. The corollary for working students is that the day job effectively replaces class contact so that independent study can be expected to reduce as working hours increase.

TIME AND STUDY PACING

When the student's time is limited and their circumstances mean that no more can be found, the efficiency, pacing and speed of learning become critical factors. Although the acquisition of knowledge and experience can be regarded as a linear process, the reality is that this is time dependent and most often represented as an "S" curve that plots the degree of learning against time. Brown and Saks (1985, p122) stress that, although the transition from no knowledge to full knowledge can be instantaneous, time is normally required and suggest that the length and steepness of this learning curve is influenced by pace, style of instruction, study organisation, material sequencing and content. It is not unreasonable to assume that as the student moves along the curve they use a cost / benefit process to make decisions about their study, and in this

respect Burt (2000) reasons that a student acting rationally will allocate time in the most productive fashion to the study considered of greatest value. Consequently he argues that learning speed is a function of the efficiency of communication, pre-existing familiarity with course materials, the depth of study (skimmed or detailed), and the percentage of course material studied. The variability in the individual that this implies reinforces that 'people do not study at a regular speed' (Lockwood, 1998, p4), and a specific issue that influences both speed and efficiency of study is the student's age. Rogers (2001, p22) points out that the efficiency of short term memory capacity reduces with age often causing older students to sacrifice speed for accuracy. This creates a dilemma as forcing younger students to progress at too slow a pace can be frustrating but too quick a pace can equally be counter-productive if it leaves older students trailing behind. Although not specifically related to age Lawless (1994, p59) observes that surveys at the Open University have indicated that students can trail up to four weeks behind the recommended timetable. The problem with variable speeds for distance learning students is that the key fixed dates generally relate to assignment submission and these effectively determine the study pacing. Consequently keeping up with study is a perennial problem for distance learners and in a study of German students Swittman (1982) found that the greatest obstacle resulted from their inability to combine work with a rigid study pace. He identified the speed of presentation, duration of learning phases and the rhythm of learning as influencing factors concluding that the time control of learning is the most significant factor to be managed. On this point Anderson (1985, p160) stresses that the timing of study is equally important arguing that presenting the student with learning tasks at the optimal time for their prevailing knowledge and skills significantly reduces the amount of time required to learn. Thereby hangs a further difficulty as not all distance learners will be ready at the same time, and may be at different points along their learning curve. A solution can be to allow students the flexibility to study at their own pace, however, Rowntree (1997, p91) cautions that this risks students losing momentum, and he promotes maintaining a structure for study that limits their freedom to take their own time.

TIME USE AND STUDY

To a large extent Swittman (1982), Brown and Saks (1985) and Burt (2000), pick up on the model of school learning developed by Carroll (1963) which focuses on the economics of the learning process. He hypothesised that the degree of learning can be expressed as a function of the time actually spent in learning divided by the time needed for learning. In his equation the time spent in learning is given by the smaller of aptitude, opportunity or perseverance; and the time needed is that remaining after adjustment for quality of instruction and ability to understand instruction. In respect of College students, aptitude recognises that many need only a small amount of time to learn due to their seniority, work experience or prior learning. Their aptitude and generally high confidence and motivation also mean that they have the required perseverance to allow sufficient time. However, in common with other students, they may lack

learning opportunity due to insufficient time resulting from an excess of study material, or their other commitments. Generally the assumption within the model is that a student 'stops learning at the point they consider they have mastered the task' (Carroll, 1985, p67). If underachievement occurs this is attributed to a combination of lack of perseverance, poor quality of instruction, or insufficient time allowance. Even when none of these barriers exist, Bloom (1985, p78) believes that 5% of students will still require help, and promotes teaching to individual needs rather than by group as this stimulates more time on a task. The reference to personalised teaching raises questions about the use of a 'one-coat-fits-all' approach, traditionally adopted for distance education, at a time when individualisation is more prevalent in society, however, any move toward individual teaching would have immense cost, time and staffing implications unless it is significantly harnessed to technology. This raises issues of the quality of teaching, and Carroll's model has been criticised (McIlgrath and Huitt, 1995) for measuring the quantity of time engaged in learning, but not the quality of that time. Peters (1998, p65) equally urges that effort should be concentrated on the qualitative aspects of learning and teaching. The paradox, that Adam (1995, pp62-64) alludes to, is that commodification of learning means that all tasks have an optimal, quantified time that enables efficient study planning but the consequence is that individual student differences or preferences are not allowed for. Quality of learning can consequently be judged an issue that is closely bound to study time and most research accepts that the time spent in learning is positively related to academic achievement. For instance, Burt (2000) terms this 'learning gain', however the definition of the study time that leads to this gain is not clear. Ralph (2004, p13) in particular argues that students only engage in personal learning for a fraction of the total time they have, due to breaks, distractions and administration. He differentiates between *allocated time* within which the student has the opportunity to learn specific subject matter; and *engaged time* which he describes as a sub-set of allocated time during which the student participates in active learning. These he distinguishes from *time-on-task* which he defines as the amount of engaged time that the student actually devotes to performing a particular learning task. Ralph concludes that *academic learning time* (ALT) is the proportion of engaged time during which the student experiences success in the learning process, and this can be regarded as effectively refining the cost / benefit principle. Distinguishing between different descriptions and uses of time is important as it cannot be assumed that every minute a student records as study is used for academic learning. Ralph suggests that an ALT of 70-90% denotes a high level of accuracy or correct responses. In respect of non-productive time Anderson and Walberg (1993) show that students often lose 20% or more of their allocated time to non-study activity, and this is supported by Thorpe (2006) who suggests that as much as 10-20% of study time may be lost to administration tasks. Consequently it must be acknowledged that 'even under the most optimistic conditions it is unreasonable to expect students to be totally occupied in learning for all of the available time' (Smyth, 1985).

TIME ACCOUNTING

The recognition that a wide variety of factors influence study time has lead researchers to construct further models to account for time in education. In particular, Burt and Lloyd (2004) describe a static model of calendar-based accounting. This allocates time to the different domains of a student's life and the total time within the period equals the sum of time spent in each. Using a zero sum calculation the time available for study is then the total time minus the time given to other activities such as work and sleep. No problem exists if the available time is greater or equal to the required study time. If not, they suggest that the student must either reduce the time they allocate to other domains or reduce the time given to study or reduce their academic expectations. In a modification to their static model, Burt and Lloyd introduce the concept of satisfaction into a dynamic model. As with the static model satisfied demand occurs when total time is less than the calendar period but, when total time is more than the calendar duration, unsatisfied demand exists. For accounting purposes, this may be written off or carried over into the next calendar period, i.e. study may be skipped or deferred. Given the fixed nature of most distance course designs, the static model is more pragmatic than the dynamic one. Both, however, adopt accounting concepts that have synergy with practice in industrial engineering which seeks 'to specify, predict and evaluate the results to be obtained from systems' (Zandin, 2001, xix). In the systems approach it is not time *per se* that matters but the money value that is placed on time, and the classic example of this is work measurement. This follows Taylorist principles to define a standard unit of work that provides an equitable and comparable measure of the effort required to complete a task. Its main stages involve selecting a task; defining its various elements; and then measuring the time taken for each element before defining a standard time. In common with accounting for study time, the results obtained from work measurement vary depending on the work content, working practice, interruptions, skill variations, worker's enthusiasm and rest periods. To equate how the resulting standard of work compares with that of a skilled person, it is normal for the work to be rated by a qualified person. This rating recognises that certain factors are within the person's control, such as their physical ability, and that others, such as the materials and equipment used, are outside their control. Within education the nearest practice to rating is peer evaluation, however, this has in the past focused on teaching rather than learning. The outcome of work measurement is that the number of basic minutes required for the task is the observed time scaled up or down depending on the rating. To this basic time a relaxation allowance may be added to acknowledge fatigue, and a further percentage added to allow for biological needs. This defines the basic work content and further contingency allowances may be added for difficult work or delays to give the standard time for the task. Standard time is used to calculate how long a piece of work should take and to evaluate individual performance. In a similar manner to Carroll's determination of the degree of learning, the industrial engineer calculates the percentage utilisation as the ratio of productive hours spent on the task (total time less delay time) to the total work time (Zandin, 2001, s2.65). The efficiency of the work is then the proportion of the actual work completed expressed as a percentage of the anticipated standard

task completion within the time. Following similar principles, and referring to Kooreman and Wunderink (1997), Burt and Lloyd (2005) express educational gain as the student's final knowledge less their initial knowledge. Although this may be affected by any practical experience gained during the course of study, they determine the educational effectiveness, corresponding to productivity, as being the educational gain divided by the total study time expended. The total study time they consider corresponds to budget constraint in economic theory and conclude that, as with industrial practice, the utility of study is the total educational gain.

ECONOMICS OF TIME USE

Economic principles form a thread that runs through considerations of time use and time accounting. What is notable is that time use practitioners, such as Gershuny, Fisher and Michelson, place greater emphasis on the external environmental factors and give considerably more attention to the factors that influence the consumption of time as a resource. In this respect the definition of modern economics as 'the science which studies human behaviour as a relationship between ends and scarce means which have alternative uses' (Robbins, 1935) resonates with time use enquiry as time is the ultimate scarce resource. As Burt and Lloyd (2004) highlight, scarcity exists when there is insufficient resource to meet demand which is the general situation faced by working students. If scarcity does not exist there is no decision to be made about how to allocate time. This is generally a luxury that may only apply to students working part-time and who are consequently less constrained over when, and for how long, they can study. For the majority who must make sacrifices to free up time this can be regarded as an investment in their human capital and the pay-off comes through enhanced future earnings and more satisfying careers. Mankiw (2006) identifies the trade-off that people face in their daily lives as one of the main principles of economics. In the case of students the trade-off is between the present time, present consumption activities and future benefits. This sets up the continuum of choice, illustrated in figure 2, between present and future 'wants'. At (a) the student can budget to spend a full 24 hours on study and give no time to other activities. Clearly this is biologically impossible but contrasts with (b) where the student devotes no time to study and decides to spend the full 24 hours on other activities.

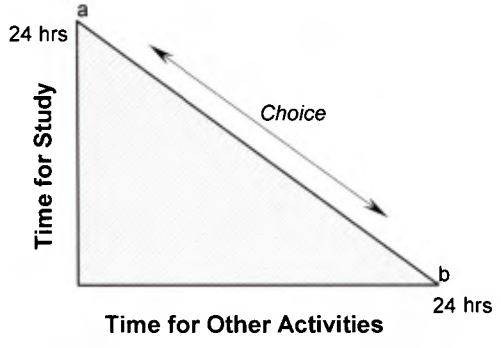


Figure 2: Time Budgeting

How students choose to budget their time can be anticipated to be influenced by their circumstances, preferences and past experience. In this respect economic theory is founded around a model of human behaviour, *homo economicus*, that assumes that people act in their own self-interest. This mirrors the individualisation that Landwerlin indicates as characteristic of late modern society, however, as economic theory dates back at least to 1776 and Adam Smith, this is perhaps more a modern take on a long established ideal. What is apparent is that it is the microeconomics of time use that is central to choice. As a branch of enquiry the classical theory examines how buyers and sellers interact, and how different factors influence their decisions to trade a particular commodity. The model is based around patterns of supply and demand that are affected by the price and output for a commodity determined within a specific market and level of scarcity. This market is defined by the firms, companies, and households who share an interest in producing, selling, consuming or buying the commodity. In the context of distance learning students the market can be considered as the individuals, institutions and organisations who directly influence their time. These are all found within the student's intimate zone, as illustrated by Juler in figure 1, giving the environment in which preferences and constraints are formed a strong social context. In his 1992 Nobel economics lecture, the laureate Gary Becker called for an economic approach to social issues and emphasised that most social activity is constrained by lack of opportunity; most frequently due to the needs of other people but most fundamentally by lack of time. He argued that the finite nature of time as a resource and its egalitarian availability to every person irrespective of wealth highlights the potential inadequacy of a supply and demand model built around wealth maximisation and self-interest. Instead Becker promoted rational choice theory as a framework for understanding social and economic behaviour. This assumes that a person is motivated by wants or needs for which they have preferences. When asked to choose between two alternatives the preference may be for option A or option B, or alternatively they may be indifferent to either. The assumption is that the preferred choice is the one that gives the greater satisfaction, which economists term utility. The utility is therefore a function of the individual's preferences and the constraints that may limit their ability to choose their favoured course of action. An equal emphasis on satisfaction and utility is evident in respect of time use practice as 'the utility of someone's behaviour is seen in terms of such things as the amount of their time that it takes up and the frequency with which they are able to do it' (Scott, 2000). Kooreman and Wunderink (1997, p25) call for the modification of the classical model as it is 'human beings [who] experience utility from the consumption of goods and services'. In this respect rational choice, like classical economics, assumes that an individual will try to maximise utility. In effect this means maximising behaviour to achieve the greatest satisfaction from the investment in human capital or from the allocation of time. It is, however, recognised that decisions are 'choices made in the face of [future] uncertainty' (Shackle, 1961, p5) such that maximum utility cannot be known with any precision, therefore it is more a case of maximising the expected utility that shapes time decisions. This has parallels with a cost / benefit calculation, which itself can only be anticipatory, and is reflected in economic marginal utility that describes the change in satisfaction associated with a change in consumption. To illustrate this, the relationship between work and study was

examined by Stevens and Weale (2004) in the context of top-up fees and full-time students. They found that students who take paid employment work to the point where the 'marginal utility of the extra consumption that working makes possible is just equal to the present value of the marginal utility which would be derived from extra study'. Given the fixed nature of their employment, this choice is not available for distance students but does reinforce that economic principles underpin the cost / benefit decision. Supply and demand is a well established theory but, by their own admission, economists largely ignore time in the classical model. Robinson (1964, p142) was critical of this disregard and consequent treatment of 'movements through time as though they occurred in stationary equilibrium', and later (Robinson, 1980) called for the inclusion of time, and thereby decisions, into economic models. The theory is normally discussed in terms of the variation in price and quantity of a commodity and their relationship is conventionally shown as the Marshallian [2] cross in figure 3.

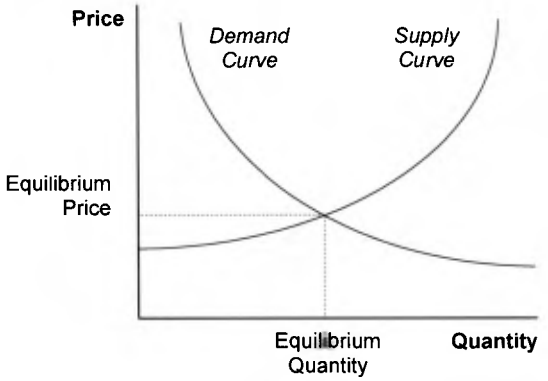


Figure 3: General theory of price determination

The problem is that time does not immediately relate to price other than as defining an exchange rate, e.g. £15/hour. This concept has been used by time use researchers, such as Gershuny and Kooreman and Wunderink, to price the time a person takes to complete a task by equating this to the price another person would charge to do the task in their place. Clearly such a plagiaristic substitution is not realistic for academic study, and a more appropriate solution is to consider the opportunity cost when deciding between alternatives, as 'once consumed time cannot be consumed again' (Klein, 2007). This is a basic concept in economics and centres on the cost of sacrificing the next best alternative to the chosen option. This need not be financial and may be considered as a benefit in kind to someone else. Supply and demand theory is a useful means for understanding the mechanisms by which time can be affected by cost. The problem is that it tends to exist 'within a timeless environment' (Robinson, 1980), and is not sufficiently dynamic to accommodate the complexity of student's decisions about time use when multiple activities are involved. Within the zero sum equation they have to make trade-offs between the numerous alternative activities that they can spend time on within their 24 hours. To make their choice they have to combine the budget constraint of the time they can afford

[2] 19th century economist Alfred Marshall explained that the output and price of a commodity are determined by both supply and demand, and was the first economist to explain that demand falls as price rises.

with their preference for different combinations or bundles of time. Indifference exists when two bundles are equally preferred such that each gives the same level of satisfaction (ie utility). This defines the indifference curve, and the contours shown in figure 4 plot the variation in preference between alternative bundles of activity. As a principle the higher indifference curves are preferred to lower ones as more satisfaction is preferred to less. When the budget line from figure 2 is overlaid the point where this intersects with the preferred bundle defines the point of maximum satisfaction or utility.

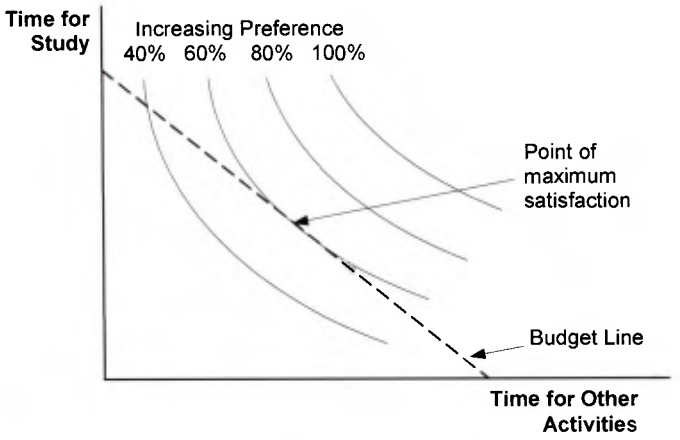


Figure 4: Time budget and indifference mapping

Most bundles of activity are constrained by the pressures imposed by other people. Rational choice theory, therefore adopts a present-aim rationality for decision making that assumes that individuals act in pursuit of objectives at the moment in time that they make their decision. The relevance for time use is that rational choice presumes that a person is primarily motivated by their preference when choosing between alternatives, as figure 4 illustrates. This may be based on custom, routine or a cost/benefit calculation linked to supply or demand factors. Consequently, following an indifference approach, a student acting rationally will choose their preferred option ahead of others on the grounds that it gives them greater satisfaction at that moment in time, even though a short time later this preference may have changed.

TIME AND WORKLOAD

A significant factor that can be anticipated to influence both demand and preference is the time required to complete study. A high workload that overloads the students with more work than they have time to complete creates conditions in which they cannot learn efficiently so do not achieve the anticipated educational gain. Researchers agree with Chambers (1994, p105) that the effect of overload is to force students to sacrifice time they would prefer to spend in effective study to the demands of getting through it by any means possible. Chambers (1992) was influential in promoting rules of thumb for evaluating workload that have parallels with industrial engineering, such that the task selected is a block of study with defined start and end times. The learning tasks are broken down into a series of component elements against which time can be measured such as reading, using resources and completing assignments. If each

element of a task can be observed as it is performed, the time taken to complete it can be accurately measured from which standard times or rules of thumb can be defined. There is a moral obligation on educators to ensure that the published study hours are realistic, and the use of standard times potentially enables this. Within the distance context the standard times used to quantify study are effectively the interaction rates which a student can be assumed to use in reading, writing, listening and speaking. Bailey (2000) lists a number of typical human interaction speeds and quotes the average adult reading speed as 200-300 words per minute, with a typical comprehension of 60%, that contrasts with a comfortable listening speed of 150-160 words per minute for the spoken word. Depending on their ability, a person can average typing speeds of 23-40 words per minute in comparison with an average handwriting speed of about 31 words per minute. These are helpful indicators but may be no more than that as the sorts of allowances recommended for work measurement may not be included. Again it is the individual that matters, and Lockwood (1998, p12) points out that different readers will seek different things from a text depending on their previous knowledge, experience and interest as well as language skills. This makes it difficult to estimate how long study will take an individual, yet, despite this, distance education has used rules of thumb to quantify study. Historically distance study has involved much reading and Chambers (1992), referring to Whalley (1982), suggests a scale of 40-100 words per minutes for the rate of text-based study depending on its relative difficulty. Developed from basic interaction speeds, these standards assume completely new materials and, consistent with industrial practice, include time allowances for thinking, note taking and re-reading. Such rules of thumb work for text but are less useful for assignment completion and numerical worked examples. In the latter case a study of maths and computing students by Lawless (2000) showed that students who made a serious effort and succeeded in completing calculations spent three times longer than those who saved time by only reading the solution. Although the study time associated with textual materials can be estimated using rules of thumb, Lockwood (1998, p152) points out that estimating online time is more difficult. McConnell (2006, p67) observes that finding the time to contribute to online discussions and group work is important but one that Salmon (2002, p95) suggests can cause alarm about how much time is taken up, particularly if this time is felt to be unproductive. She estimates that the time to open and read a message is one minute and 10-15 minutes is then needed to post a short reply (Salmon, 2002, p159). These issues of quantification are compounded within an international context, and language is clearly a factor in the time required for study by international students. Smith et al. (2006) observe that native English speakers frequently underestimate the extent to which mastery of a language is a prime contributor to failed cross-cultural interaction. In this respect Garg et al. (1992) suggest that study speeds for Indian students studying in English as a second language should be reduced to 60% of that assumed for first language English speakers. Diary research by Kember and Leung (1998) examined the relationship between perceived workload, study hours, language ability and approach to learning of Hong Kong engineering students, extending earlier research by Kember et al. (1996). This indicated that those who employ a surface reproducing approach tend to be less proficient in English and consequently perceive workload as high. As a result Asian students

can be anticipated to need more time to adapt, and are particularly affected by factors such as course content, assessment, workload, teaching method, relevance and interest in the course that may influence their 'pragmatic acquisition of essential knowledge' (Tweed & Lehman, 2002). This difference between English, Chinese and Indian students demonstrates that time estimates may never be globally accurate or representative. As further example Zaphiris and Kurniawan (2001) refer to studies that show that reading from monitors is 20 to 30% slower than reading from paper, whereas Mayes et al. (2001) indicate that their research with psychology students shows that people can in fact read information on screen just as quickly as people read from paper.

CHAPTER CONCLUSION

The literature discussed in this chapter reinforces that paramount amongst the changes that have emerged is the effect of technology in compressing and accelerating the space and time for study. As a result the balance of a working student's use of time can be anticipated to have changed compared with a decade ago. This may or may not be age related as Brooks' (2006) study of graduates in their mid-20s who completed their degrees up to five years prior to interview found that the balance between learning, work and leisure had shifted considerably with a greater acceptance of the embedded nature of paid employment as normal within their lives. In researching time use the literature indicates that time budgets are an appropriate method to adopt, however some caution is necessary as it clearly has not been used more widely to investigate student time. Note is taken that a holistic approach is needed to form a complete picture of a student's day, and this justifies the eight daily activities identified in chapter 1. Study is an activity, however it is clear from the literature that a single activity will not provide the completeness of understanding. Consequently study needs to be divided into three specific activities within this research that differentiate between productive and non-productive study time, and between conventional study and study completed through a VLE.

- Study time – productive time spent in conventional study and assessment preparation making use of both physical and virtual resources but without the need to be logged into the VLE.
- VLE time – productive time spent specifically in study activity that requires presence within the course VLE to access information, links or to actively participate in the discussion forums..
- Admin time – non-productive time spent in activity associated with study such as organising and filing study materials or making general course enquiries.

These provide general headings for investigation and, as with the other time activities identified, it must be recognised that there is potential for overlap. For instance, a student may read a study paper as hardcopy mailed by the College, as hardcopy downloaded from the VLE, or on-screen as a virtual copy.

The literature draws attention to age, motivation, prior learning, pacing and autonomy as influences on time use so warranting further enquiry. It is also apparent that the early stages of the transition to distance study may be more critical in establishing good time management suggesting a suitable timing for the research. In respect of time budgets, the principles underpinning the models for learning or time accounting point towards economics as providing a theoretical base for interpreting the findings from these. In the final analysis, the literature suggests that it is the cost and benefit of study in relation to a student's other life events that makes the difference, and which influence decisions on study time allocation. It is clear from the literature that some difference between UK and international students can be anticipated reinforcing the need for this to form a strand to this research. The next chapter explains how key points from the literature influenced the methodology used to conduct the research.

Chapter 3

RESEARCHING TIME

"Time is precious; but truth is more precious than time."

(Benjamin Disraeli)

Chapters 1 and 2 have introduced the issues and discussed the different contexts for time that research into adult student behaviour must be cognisant of. This chapter takes these and describes the reasoning and methodology followed in developing this thesis.

RESEARCH AIM AND OBJECTIVES

The aims and objectives for this research are:

Aim: To establish whether it is feasible to define average time for study and what a realistic expectation of the time commitment for working distance learning students should be.

Objectives:

1. To identify whether an optimum weekly study time can be identified;
2. To determine whether relationships exists between the main activities within a student's week that influence the time they give to their studies.
3. To establish how different groups of student may vary the time given to different activities.
4. To establish whether international student time use differs from that for UK ones.

RESEARCH CONTEXT

The College of Estate Management offers a range of property and construction courses and the one selected for this research was Part 1 of the Graduate Development Programme (GDP), which is a conversion course leading to an MSc in Surveying. The reason for its selection was its activity led approach with study arranged in sequential blocks of time. This enabled subject focus to be maintained and research related tasks to be justifiably included. It also had a significant online component requiring students to complete learning activities and interact with the study resources, fellow students and tutors through the virtual learning environment (VLE). The rationale underpinning the GDP model is that if the student wants the qualification they must complete the assessment; to complete the assessment they must complete the activities and to complete the activities they must understand and use a range of study resources. Students taking the course are advised that they are expected to give 14 hours per week to study. The modules studied between February and the exams in October are listed in table 1 (one further module is studied after the exams but was not included in this research).

Information Management and Control	6 week	10 credits	Coursework only
Technology of Building	10 week	20 credits	Coursework only
Introduction to Law	8 week	20 credits	Coursework and Exam
Fundamentals of Practice	8 week	20 credits	Coursework and Exam

Table 1: GDP Part 1 modules 2008

Students taking the GDP course come from a mix of practice disciplines, geographical locations, languages, practice conventions and employment cultures. All must have a degree which is generally in a discipline unrelated to property or construction. The majority tend to be practicing as surveyors in the UK but a minority are located overseas in China, the Middle East or mainland Europe. Previous surveys have shown that their reason for taking the course is primarily its recognition for membership of the RICS. Students entering with a non-cognate degree gain no exemptions and must complete a single foundation module before commencing Part 1. The remainder with partial or fully cognate degrees start at Part 1 and may gain an exemption for prior learning in one or more of the first three modules. Students are allocated to an online study group of up to 30 students, each lead by an associate tutor. Groups are formed of students from either real estate or construction practice, and the proportions of ages, genders and non-UK students in each group are broadly kept comparable. The tutor's role is to moderate and guide the group through the learning activities, and to mark their assignments. Two assignments are set for each module and these include a mark for participation in the VLE forums. Self-assessment is through interactive quizzes created in Question*mark* and scheduled as learning activities. The primary focus for this research was the Information Management and Control (IMC) module which offered specific benefits because:

1. It came early in the course;
2. It had a high enrolment ensuring a greater representative sample of responses from UK and international students;
3. Previous students demonstrated good participation in online activities;
4. It permitted activities relevant to this research to be introduced;
5. It included activities that had already been time assessed for workload;
6. It included both new students and students who already had GDP study experience from the foundation module;
7. It included a face to face day held in Reading and Hong Kong.

RESEARCH STRATEGY

The nature of time as both a measure of quantity and a resource to be measured (Adam, 1990, p103) offered alternative approaches for developing this thesis. Time as a measure

implied comparison between two fixed points and initially steered the research towards a top-down deductive paradigm centred on statistical analysis. During the early stages of analysis it became apparent that limiting the research to an empirical approach that considered change on a before and after basis could not deliver the objectives set. The reasoning for this was evident within the literature which reinforced the imperfection of a social reality in which humans are not objects. In consequence, Adam (1995, p71) has advised that researchers need to 'recognise the constitutive character of time, [and] that research is not merely conducted in time and over time but that it creates time in interaction with its subject matter'. Gershuny similarly has rejected traditional empirical research on the grounds that the description runs prior to explanation, whereas 'time budget evidence requires exactly the opposite treatment' (2000, p120). These arguments were persuasive in reframing the research as a bottom up inductive paradigm that reflected the nature of time as a resource to be measured. Whilst not rejecting the initial deductive enquiry, this permitted the expansion of the research to consider all aspects of time as experienced by the student. In this regard, Kember et al. (1996) argue for a multi-variable approach that is grounded in the teaching context, and allows for the input of student perceptions. The resulting strategy adopted an incremental survey approach with both qualitative and quantitative data collected through questionnaire or diary. Confirmation for the viability of this approach was given by Juster et al. (2003) who researched alternative methods for recording time use. They concluded that an effective strategy is to use a hybrid approach in which diaries are used to collect the quantities of time, supplemented by interview or questionnaire to record the qualitative 'texture' (Michelson, 2005, p117) of the activities.

The research was divided into two phases and five stages completed sequentially as shown in table 2. Phase 1 was the main research phase that focused intensively on the students' time use before, during and after the IMC module. Phase 2 was the follow-up to the main research comprising a longitudinal survey that tracked a sample of students over the succeeding three modules to investigate changes in their time use and any emerging phenomena that created time pressures; and finally feedback during Part 2 of the course to assess the credibility of the findings.

Phase 1	Stage 1	Pre-Course Questionnaire.
	Stage 2	24 hour Diary kept for 7 days.
	Stage 3	Post-IMC module questionnaire.
Phase 2	Stage 4	Post-Technology module questionnaire.
		Post-Law module questionnaire.
		Post-Practice module questionnaire.
	Stage 5	Part 2 Feedback questionnaire.

Table 2: Research Phases

The principle instrument for collecting the primary data on a student's allocation of time was a 24 hour diary that each student was required to keep for one week. Given the widespread nature and remoteness of College students, it was deemed the most viable option for recording their use of time. It was piloted and refined with the assistance of College staff.

As a method, diaries are not problem free. Bell (1999, ch10) identifies these as the:

1. potential for extra pressure on student time leading to loss of thoroughness in the completion;
2. possibility that instruction is not explicit and robust enough to be retained in memory over the chosen period;
3. loss of commitment due to inappropriate preliminary student consultation;
4. lack of clarity in purpose and design leading to loss in accuracy and commitment;
5. act of diary completion itself causing students to modify their normal behaviour patterns;
6. period chosen not being sufficient and/or representative.

The potential for problems 1-3 was overcome by embedding the time recording in a learning activity within the module. The rationale presented to students was that time is a resource and a form of information that they can collect and analyse, thereby assisting them in their personal development and orientation to distance study. The key to obtaining their participation was to make the student's analysis of their own time a task for their final assignment for the IMC module. The relevant activities and assignment are shown at appendix 1. Problems 4-6 are considered below under research schedule and research credibility.

Online questionnaires were used to collect primary data that surveyed: the whole student population before they commenced the course; the students taking the IMC module on its completion; and the sample of students included in the longitudinal survey on completion of each of the three subsequent modules. A paper questionnaire was used to obtain stage 5 student feedback during Part 2. Each questionnaire was piloted with a small group of academic and administrative staff before issuing to students. Apart from the feedback questionnaire, these were distributed by email with a covering explanation of their purpose and instructions for their completion and return. The feedback questionnaire was distributed during a face-to-face day with an oral explanation of its purpose.

The data collected through diary and questionnaires were supplemented by secondary data taken from College sources:

- Student records - providing individual details of age, gender etc to verify duplicate information given in questionnaire responses.
- Blackboard statistics - detailing student access to different areas and discussion boards within the VLE, enabling validation of diary accuracies.
- VLE forum participation - quantifying the volume and timing of messages posted by individual students, enabling verification of diary entries.
- Module marks - detailing the student's academic performance on each of the two module assignments and exam as applicable.

RESEARCH SCHEDULE

The research was completed between January 2008 and September 2009. The stage 1 questionnaire was issued in January 2008 during the pre-course registration period. Stage 2 diary recording was conducted in the second week of the IMC module over the week 4-10 February 2008. The decision to place it early in the course was based on six factors:

1. Students are generally enthusiastic at the start of the course and engage well with the activities so a reasonable response rate could be anticipated.

2. Students who have previously studied management are exempt from the IMC module, thus minimising any prior learning factor as described by Carroll (1963, 1985).

3. The IMC module was the natural place to position a learning activity involving data collection and analysis as it maintained relevance for the student. Being the first module studied this effectively forced an early positioning.

4. To contrast differences in time use of those who do and do not attend weekend face-to-face the recording week needed to coincide with the introductory day at the start of the course.

5. An early week allowed time use behaviour to be recorded at a critical point for new students before experience of the intensive sequence of study caused any behavioural change.

6. The start of the first year of a course was identified as the danger period for student drop-out so potentially offering an insight into this problem.

Concern that the timing for a diary week could be too soon was raised by Kember and Leung (1998) who reason that investigating students two-thirds of the way through their course allows them to settle into study, so is less likely to lead to idiosyncratic responses. This concern was allayed by Michelson (2005, p42) who observes that the timing of when a time use survey is conducted can introduce bias but that generally patterns of time use keep their shape regardless of season or day of the week. Recognition that the results could be unrepresentative prompted the inclusion of the stage 4 longitudinal study to track changes in students' feelings, circumstances and time use.

The stage 3 questionnaire relating to the IMC module was issued as soon as the module completed in March 2008. The timing of the stage 4 longitudinal surveys was dictated by the course programme. The questionnaires were issued on completion of the three successive modules in May, July and September 2008. The stage 5 verification questionnaire was issued to students attending the Part 2 revision day in September 2009, as the first opportunity after completion of the full analysis.

Sample Sizes

705 students registered for the start of the Part 1 course in 2008, of whom 470 (67%) were required to take the IMC module. This relatively high number was deemed beneficial as Michelson (2005, p43) highlights that small samples only illustrate the ramifications of time use whereas larger samples are essential for qualitative analysis. With this in mind the pre-course questionnaire was issued to all students taking the course irrespective of exemptions. Similarly the instruction to record the diary and to complete the post-IMC module questionnaire was issued to all students taking the module. Processing this volume of data was considered worthwhile as the two questionnaires were linked to the diary. Tracking the full cohort for the follow up longitudinal survey was not, however, considered necessary and instead a sample was taken from the 221 students (47%) who submitted a complete diary, both questionnaires and volunteered their participation. Selection was made using a sample frame of age, gender, geographic location and whether they had dependent children. The sample size of 62, equating to 28% of the pool, was judged sufficient to allow for students dropping out of the course or withdrawing from the research. In respect of the feedback questionnaire 220 students who studied the Part 1 course in 2008 attended the Part 2 revision day in 2009 and were invited to complete it, representing a potential 31%.

DATA COLLECTION

For stage 1 a letter was sent to all students with their study materials explaining the purpose and format of the research. The letter is shown at appendix 2 and included a request for the student to complete the pre-course questionnaire prior to starting Part 1. The intention of the questionnaire was to provide background details about individual students and a profile of the group as a whole. It included questions previously included in a 1999 survey of students for comparison. The questionnaire was created in Survey Monkey and the link emailed to students. The covering email and questionnaire are shown at appendix 3. Students were encouraged to complete the questionnaire as soon as they received the introductory letter. They were reminded to do this through the VLE and a follow up email was sent one week into the course.

The diary to be completed by the student for stage 2 was created as the password protected Excel spreadsheet shown at appendix 4, and followed recommendations for good practice made by Corti (1993). A set of instructions, shown in appendix 5, were sent to the student explaining the procedure to be followed, how to complete the diary and how to interpret the activity codes. Colour was included to help differentiate between elements of the data to be captured; and the different days of the week were clearly marked. Practice in time use research generally asks for details of parallel activities occurring at the same time, with whom and where. Although this is normal in national time-use surveys to provide richer interpretation and understanding of data, it was considered to be too onerous and at too fine a detail, or granularity, to be required for this research. For recording purposes the day was divided into 24

hours and for each hour a student could enter up to 3 codes to indicate their main activities. The 60 minutes were then equally divided between the codes making 20 minutes the smallest recordable segment of time. Submission of the diary for this research was at the discretion of the student. If they chose to participate they were instructed to send their diary to a generic email address on completion of the assignment. The completed Excel spreadsheet included a routine to automatically collect the 1133 data items into a single column of information. This was copied into a summary spreadsheet for analysis. Students were reminded to send in their spreadsheet through the VLE and by email.

Table 3 summarises the time activities, identified from chapters 1 and 2, that formed the basis for the investigation of time use following the method outlined above. A closed diary using the letter codes in the table was judged appropriate both to cover the main daily activities and to be realistic for the student to complete.

R - RESTING	Time spent asleep at night or resting during the day.
D - DOMESTIC	Time engaged in normal domestic activity within the home – personal ablutions, childcare, cooking, eating meals, washing up, shopping, washing, ironing, cleaning, DIY, decorating, maintenance etc.
S - SOCIAL	Time engaged in social activity with family and friends outside the home – meeting for tea / coffee, eating meals, going to the pub, club or cinema, voluntary work, youth clubs, councils, professional meetings, weddings, attending church, long telephone calls etc.
L - LEISURE	Time engaged in specific sports, hobbies or interests – playing or watching sports, model making, gardening, walking, watching TV, holidays etc.
I - INTERNET	Time spent on the Internet – emailing, online banking, online shopping, general surfing the net, social networking (chat rooms, Facebook, MySpace etc), multimedia sites (YouTube, Flickr), audio downloading.
W - WORK	Time engaged in the job between arriving for work and leaving at the end of the day, including meal breaks and overtime.
T - TRAVEL	Time spent travelling to and from work, but not time spent travelling for other purposes such as socialising or leisure.
G - GDP STUDY	Time engaged in GDP studies at home or at work – including productive time in thinking, reading reference papers / textbooks, collecting information at work, talking / texting with mentor and other students, making notes, writing up activities, preparing assignment answers, completing quizzes, watching videos, listening to audio recordings etc.
V - GDP VLE	Time engaged in reading and posting messages to the Blackboard VLE, accessing information in the student portal, accessing and reading study materials, researching on the Internet for learning activities, emailing to other students etc.
A - GDP ADMIN	Time engaged in organising and managing studies – including all non-productive time such as printing materials and source documents, mailing information, sorting and filing information, sorting out IT problems, sorting out admin matters with the College etc.

Table 3: Diary Codes

Of the ten codes, three were directed at course related activity; two were employment related; four were focused on non-work activity; and, following Gershuny's recommendation (2008), one covered time spent resting. The instructions for how to complete the diary were considered sufficient but a forum was opened on the VLE to allow students to clarify and obtain advice if necessary. The choice of a structured closed diary using pre-coded activities was based on evidence from Corti (1993), Michelson (2005, p51) and Gershuny (2000, p256) that, compared

to open diaries, they are less onerous to complete, are less daunting, have a better response rate, are more reliable and are simpler to analyse due to their standardised coding. These were judged to over-ride the potential loss of fine detail that open diaries permit, much of which would have been irrelevant and intrusive within the context of this research. In this respect Innis and Shaw (1997) emphasise the importance of distinguishing between what is research related and what is nobody else's business, so justifying this decision. As well as recording their time on the different activities students were asked to record the time that they spent on specific learning tasks scheduled to be completed during the diary week as shown in table 4. Not all learning activities required all of these tasks to be completed, and during the diary week no writing or drafting of coursework was required to be undertaken.

READING / WATCHING	Time spent reading the reference papers, eg Principles of Land Surveying, or the set text, or watching the video, and any time spent reading source information found from the Internet.
THINKING / REFLECTION	Time spent thinking about the content of the activities or reflecting on the content in relation to your work. Note that this time may occur during the working day.
MAKING NOTES	Time spent writing up notes in answer to the activity questions, or general notes for your own benefit.
ONLINE RESEARCH	Time spent online finding information or answers to activity questions.
QUIZ QUESTIONS	Time spent answering the quiz questions and reading / reflecting on the feedback answers.
VLE PARTICIPATION	Time spent posting messages to the forum for the particular activity and reading and answering other student's messages.

Table 4: Learning Activity Descriptors

For stage 3 students completing the IMC module were asked to complete the questionnaire shown in appendix 6. This aimed to establish their feelings about their actual use of time and to provide them with an opportunity to give further feedback on their time use and/or to identify any specific problems they had experienced. The questionnaire was created in Survey Monkey and the link emailed to students. They were reminded to complete it through the VLE. Included within the questionnaire was a request for the student to formally agree to participate in the longitudinal study .

Questionnaires were issued to the sample of students participating in stage 4 on completion of the Technology of Building, Introduction to Law and Fundamentals of Practice modules. The respective emails and questionnaires are shown at appendices 7, 8 and 9. The questionnaires were created in Survey Monkey and the links emailed to students. Included in each email was a restatement of the times they had entered as answer to the previous questionnaire and against which they were asked to record any changes in their time use. Common questions taken from the IMC questionnaire were also included in each of the three longitudinal questionnaires to enable comparison over time. Only students who completed the preceding questionnaire were invited to complete each of the three questionnaires so as to provide a continuous view of how their circumstances and use of time changed. Students were reminded to complete each questionnaire by email and through the VLE.

To obtain the stage 5 feedback on the credibility of the main time findings, students attending the Reading face-to-face revision session were asked to complete the questionnaire shown at appendix 10. This was created as a Word document and students were required to hand complete. Given that this feedback was requested over 12 months after stages 1-4 were completed, this was deemed more likely to obtain a respectable response rate than an online questionnaire. Although it was recognised that this would potentially exclude non-UK students it was judged appropriate as past experience indicated that a small number from outside the UK normally attended the day.

Research Credibility

Given the diversity in an individual's characteristics and context, consistency in time use results cannot be expected when applying the same measure to different samples. This may potentially undermine the technique as a research method, however, confidence was drawn from Michelson's (2005, p38) experience that 'although no one finds that time-use data are flawless, the consensus is that they approximate reality more closely (and with more relevant detail) than alternatives.' Although this suggests that the use of diary method can be reasonably reliable, the myriad of internal and external factors that influence individual time behaviour represents problems for the conventional concept of validity as it is almost impossible to reach definitive conclusions. In recognition this thesis offers propositions in answer to the research questions. Despite indications that time use diaries are more accurate recordings than an individual's post-hoc estimate of time (Michelson, 2005, p37), measures were included to assess the accuracy of the diaries. The student was requested to evaluate their own accuracy in completing the entries for each day of the diary. This was suggested within the literature but offers only a subjective view. A more objective assessment was made by comparing the times entered in the diary for VLE activity against the Blackboard access data and the dates and times of message postings. Errors were accepted as inevitable but note was taken of Robinson's (1977) observation that individual mistakes in time-use reports constitute random error that more or less vanish within large samples.

DATA ANALYSIS

The data from the diaries and questionnaires provided the base information required to meet the four research objectives. The output from Survey Monkey was first scrutinised to remove duplicate responses and to convert numerical values into categorical ones as necessary. Times collected from the VLE access data were adjusted to GMT for student location and time zone. Given the objectives for the research, the analysis was directed at three levels:

1. All students responding to the diary and questionnaire.
2. Individual students completing the diary and each questionnaire.

3. Sub-groups of students sharing common characteristics revealed by the diary and questionnaires.

In respect of all student results, each questionnaire was taken into Excel and analysed for the summary descriptive information relating to counts and proportions in respect of the categorical items; and average, maxima, minima and standard deviation in respect of the numeric items. Similarly the diary data was analysed within Excel to obtain summaries of use for each time code, and the learning activity times were analysed for comparison with the estimated times. The summary data is shown at appendix 13. Correlation analysis was performed on the numeric variables from the questionnaires and diary but apart from a limited number of predictable instances the results were very weak with no strong relationships revealed. At the individual level a profile for each student returning the pre-course and post IMC module questionnaires and diary was created in Excel to collect together all related information. A typical profile is shown in appendix 11 and these were referred to as necessary to gain a holistic view of the student's situation and circumstances. In addition to their questionnaire answers, this provided aggregated summaries of the diary analysis in respect of daily episodes and the student's great day represented as the proportional matrix after Gershuny (2000, pp24-26). As well as providing descriptive information, the diary data was further aggregated and analysed, following Michelson (2005, pp53-67), to obtain ebb and flow tempograms for weekday and weekend activity. To examine group variations and differences between UK and non-UK students, individual time results were combined to produce proportional matrices for all students and for students grouped by location, UK and non-UK. These are presented in chapter 4.

In order to understand whether hidden sub-groups of students existed within the diary and questionnaire data the original research plan aimed to use statistical techniques. The intention was to identify clusters with similar characteristics and then to examine the individual student's profiles to find any shared features and relationships. In the event, both cluster analysis and a procedure based on fuzzy analysis failed to identify realistic groups unless the granularity of the data was increased substantially. This inability was concluded to result from the large sample and weak correlation between variables, so agreeing with Nonis et al. (2006) who experienced similar difficulty. In consequence standard statistical techniques were largely replaced by methods developed by time use researchers. In this regard, the aggregated analysis was judged to provide good contextual intelligence about the time use of students at a relatively coarse granular level, however, it did not provide sufficient detail of the variation in activity that each engages in and how they may be associated. Resorting to a disaggregate analysis therefore enabled investigation at a finer granularity so gaining from those 'socio-structural categories that 'explain' the variance in the activity averages' (Gershuny, 2000, p120). For clarity, disaggregate here means separating and sub-dividing the data into its component parts in contrast to the collective nature of the aggregated data.

Using a disaggregate analysis enabled the interpretation of the principal measures of time-use to be focused on, which Michelson (2005, p64) defines as:

- *Mean duration* in the day of an activity based on the total number of respondents in the sample or sub-group - including those showing zero time;
- *Mean duration based only on those who reported a particular category of time use* - excluding those showing zero time;
- *Mean duration per occurrence* - the average duration of an episode of a given activity amongst those who reported participation;
- *Percentage participation* - the proportion of the sample or sub-group who spent any time in the activity;
- *Standard deviation* – the deviation from the mean;
- *Mean number of occurrences* of episodes of each activity during the period studied.

To take full advantage of these measures it was necessary to create the spreadsheet shown in appendix 12. It allowed the diary times for individual codes to be analysed in respect of each questionnaire response. For each response category it determined the count of hours and calculated the average, maximum, minimum and standard deviation values. These were presented for all students included within a particular category and contrasted against those students who were not included. The differences were illustrated graphically and a colour coded flag was used to highlight the proportional difference between the tabulated values. The count of episodes of varying length were recorded and presented graphically. If necessary the time period could be varied to drill deeper and/or specific responses excluded. A separate spreadsheet (not appended) recorded the research ID for students making the different responses enabling their individual profiles and comments to be followed up as appropriate. Using the spreadsheet each permutation of diary activity and question from the pre-course and post-IMC questionnaires was examined to identify apparent trends and/or significant spikes in time use. Compared with statistical techniques this proved a powerful tool for drilling down to a finer detail than normal analysis permitted. The result of combining time and contextual data enabled a greatly enhanced visual approach that confirmed Michelson's (2005, p103) view that patterns in time use matter as 'the whole is greater than the sum of the parts'.

As with phase 1 the questionnaire responses from phase 2 were taken into Excel and analysed for the summary descriptive information relating to counts and proportions in respect of the categorical items; and average, maxima, minima and standard deviation in respect of the numeric items. The summary data is shown at appendix 14. As the sequence of surveys in the longitudinal study included common questions these were analysed using stock charts to identify trends. These showed the relative movement between the initial and final values and identified the maximum and minimum values in between. The detail returned was added to the profile for each student and was analysed alongside their comments made throughout the research period to expand on trends and/or specific issues. Finally the feedback questionnaire

issued during Part 2 was analysed for the descriptive information that could establish confirmation, or otherwise, for the main time conclusions emerging from the phase 1 analysis.

RESEARCH ETHICS

The research received support and approval from the Principal of the College of Estate Management, and from the chair of the College's Education and Research committee (a sub-committee of the Board of Trustees). It was approved within the Institute of Education by the Research Ethics committee in December 2007.

All students involved in this research were adults over the age of 21 and the research was conducted with full reference to the BERA guidelines (2004). Note was taken of the need for voluntary informed consent before the research commenced, and this was achieved through the introductory letter setting out: who was conducting the research; why participation was necessary; how the information would be used; and how, and to whom, it would be reported. Students were advised that they could exclude themselves from the research at any time. The main ethical consideration related to the diary component and its incorporation into the formal assessment. Its inclusion within an assignment ensured a high response rate but could have been viewed as deception. This was avoided by outlining the research in the introductory letter and giving students the option to withdraw participation. In practice submission of the diary for inclusion in the research was an entirely separate procedure to submitting it for assessment. Therefore the student could exclude themselves from the research by choosing not to email their diary to the research address or declining to complete the questionnaires. Adapting an existing module to incorporate the diary activity was anticipated as a cause for student discontent, although in the event only one comment was received.

> "A large number of people (myself included) believe that a lot of these activities were only done for the benefit of Bill McNeil's research."
>
> Male student, age 23.5, working in UK. Post-IMC: Further Comment

The ethics of adapting the activities was considered during the research design. Given the information management context of the IMC module it was judged reasonable as two of the module learning outcomes were to 'conduct quantitative analysis of data' and to 'store, analyse and present data or information in the most appropriate manner'. The modified learning activities, as shown at appendix 1, were deemed to have retained the spirit of these objectives. Additionally it was acknowledged that the researcher would be acting in the capacity of researcher, subject leader for the IMC module, and as GDP course director. This could be viewed as a potential conflict of interest by the student, however, given that students were at a distance and not personally known to the researcher, this was not considered a serious issue. No conflict arose in the use of the diaries for assessment as the researcher was not involved in the actual marking of any assignments. In the event that an appeal or complaint was made then the researcher's co-course director was in place to deal independently with these. Assurances were given to students that no sensitive information would be sought and their identity would be

kept confidential at all times in compliance with data protection. No information collected was sufficiently detailed or sensitive to cause any cultural problems. The anonymity of students was preserved through the use of a unique research identifier (URI) and the personal data collected erased once the research has been successfully completed.

CHAPTER CONCLUSION

This chapter provides a summary of the research decision points and their outcomes. It recognises the potential limitations in using standard statistical techniques for investigating human time behaviour, which may partly explain the minimal research that has been conducted into student time use. As a consequence the chapter highlights the necessity for flexibility in research so that alternative methods can be adopted even if this means creating new analytical tools or approaches. Time and workload is an area of increasing importance for researchers in both full-time and part-time education. As indicated, published research into the time use of mature distance learning students is limited, and is noticeably sparse in relation to those students located worldwide. Consequently it is anticipated that there is an interested audience for these results, and findings from this research will be disseminated within the academic community and incorporated into workload, induction and time management practices within the College. Chapter 4 presents the general findings from phase 1 and chapter 5 presents the more detailed findings from the diary analysis contrasted with the phase 2 results.

Chapter 4

STUDENTS AND TIME

"A man who dares to waste one hour of life has not discovered the value of life."

(Charles Darwin)

This chapter presents the main findings from the phase 1 questionnaires and aggregated results from the diaries that together provide an overview of the students and their time use. Chapters 1 and 2 introduced the issues surrounding this within the general everyday and study contexts of distance learners. These provided the basis for questions included in the pre-course questionnaire, and for the codes to record the main diary activities. The responses to these indicated specific questions to be followed up in the post-IMC module questionnaire. These and the literature emphasise the increasingly central role of technology in daily life and in distance study. Consequently this chapter also presents findings from an analysis of the VLE forums for the IMC module, and the time assessment made by students in respect of the learning activities detailed in appendix 1. For ease of referencing, the data presented and discussed in this chapter is summarised in appendix 13.

THE STUDENT BODY

Of the 705 students registered to take GDP Part 1 in 2008 over half were required to take the full course and a third received one or more exemptions. The residual number were retaking failed or deferred modules, of whom the highest proportion were 'rest of the world' students who do not benefit from the face-to-face provision available in the UK or Hong Kong. Almost all Hong Kong students were granted at least one exemption. The average student age at 1st February 2008 was 28.6 with ages ranging from 21.4 to 61.5. Non-UK students were marginally older than UK ones by up to 18 months. The vast majority of students were located in the UK, followed by the Middle East and Hong Kong.. Over two thirds of students were male, a proportion found consistently across the different locations. Approximately the same number of students worked in real estate as construction but a higher proportion of non-UK students practiced in construction. In contrast a higher proportion of females globally practiced in real estate.

PRE-COURSE QUESTIONNAIRE

As summarised in appendix 13, 518 students completed the pre-course questionnaire, with females showing a higher response rate than males. Responses from all age ranges were received although the great majority were in the 18-32 age ranges. Only a small number of

students declared a learning or physical disability making any substantive conclusions difficult to reach in their respect.

International Students

39 nationalities were represented coming from 15 international regions. Over three quarters were British working in the UK alongside a small proportion of other nationalities also working in the UK. British or non-UK students working abroad as expatriates were represented as were non-UK students working within their home country. For the great majority English was the mother tongue and the IELTS scores of the others ranged from 6.5 to 7.5, however, contrary to the course entry requirements, a small number indicated a score of less than 6.5.

Motivation and Prior Knowledge

As expected, the majority of students indicated that their motivation for taking the course was to achieve a qualification recognised for membership of a professional body with much smaller numbers citing obtaining a masters degree or extending their knowledge. In terms of prior knowledge, almost all students indicated average to excellent knowledge of management and information processes. The number indicating this level of knowledge reduced for building technology and practice; with English law lowest. Over a third of students indicated that their knowledge of law and technology was poor or non-existent, with marginally less stating this for construction or real estate practice.

Academic Background

In terms of background academic experience, all students had either a bachelor or masters degree as a condition of entry to the course. Two-thirds entered with a non-cognate degree and consequently had completed the foundation module. This gave them prior experience of the mode of study alongside a small number who had other experience of distance learning. The majority had taken a break in education of four years or less, however, a substantial number indicated that this had been of up to ten years or more. Over two-thirds estimated their study skills to be better than average with the remainder assessing their skills as average or worse. Although only indicative, respondents divided almost evenly in their preference for learning between theorist, pragmatist, activist and reflector. Almost a third surfed the web to find new knowledge, followed by asking knowledgeable people or referring to books either in a library or at home.

Domestic Environment

Just over half the respondents lived with a spouse or partner, and about a quarter lived either with parents or alone. 72 students stated they had dependent children, of whom 40 had toddlers under 3, 40 had children aged 4-9 and 20 had older children aged 10-15. Almost two-thirds lived

with at least one other adult with the remainder living with two or three other adults, generally close family. A small proportion lived with more than 3 adults. Not surprisingly students had weekly contact with their spouse or partner and over half saw parents weekly with a slightly smaller proportion having weekly contact with siblings. A number had weekly contact with members of the extended family. Three-quarters of students lived in houses or flats. Almost a quarter indicated they lived in the parental home with only a handful stating they lived in a bed-sit or hostel. The majority of students were able to study in a separate room at home but almost a quarter indicated they had to study in a shared room. A sizeable number had to study in a shared office at work with only a few able to study in a separate office. In respect of domestic duties a sizeable number indicated time spent in either child or elderly care. Shopping and cooking were stated as duties by over two-thirds of respondents and household chores by over three-quarters. Household maintenance, car maintenance and gardening were also cited by a significant proportion of students. Interestingly 34 students indicated they had no domestic duties, mostly due to living at home with parents.

Overall the average time for domestic activity per day calculated as 2.3 hours.

Social World

Over half the students assessed the intensity of their social activity as regular with a third indicating this to be occasional or infrequent. The remainder judged their social life to be non-stop. The number of people seen on a weekly basis indicated the average size of a student's social circle to be 5-7, although this ranged up to 60 for those with sporting interests. The most popular social activity was socialising in pubs or clubs, followed by sports, cinema or theatre, and time spent with family away from the home. A small number indicated voluntary work; and church, gym and territorial army duty were identified as activities not listed on the questionnaire.

The average time for social activity per day calculated as 2.8 hours.

Employment

The students came from all sectors of the real estate and construction industries, and included a number from outside the sector seeking to retrain. Over three-quarters were employed in the private sector and almost all were employed rather than self-employed or unemployed. Only a minority were not permanent full-time employees, working either on part-time or term contracts. Job titles ranged from trainee to director. The average length of the current employment was 1.9 years, however, the length of experience varied considerably. Almost a quarter had less than 12 months experience and a third had 1-3 years. A further third had 3-10 years experience with a small number indicating more than this.

The average working week calculated as 37.4 hours and the average overtime as 4.0 hours per week.

The majority worked a standard five day week with a small proportion working four days or fewer but a number indicated working up to seven days. A significant number of students indicated working away from home for one or more nights per week. Working hours were fixed for over half the students, but almost as many indicated flexibility in working hours by agreement or within rules and a small number enjoyed fully flexible arrangements. The majority of students took a meal break of ½ -1 hour per day with the remainder divided evenly between those who took less or more than this. The majority indicated an allowance of a half day or less per week away from work for study. This may be artificially high as this answer could be interpreted to include no time off. This is likely to be the case as only a small proportion indicated being allowed a full day or more.

Travel time to and from work ranged between 8 minutes and 3 hours per day.

Online Time and Technology

The vast majority of students had access to their own computer both at work and at home, with only a few indicating no access in either location. The remainder had to share a computer with this more frequent within the home. All students had access to the Internet and email at home and/or at work. Two-thirds of students used a computer for over two-thirds of their work time, and of the remainder just a handful made no use of a computer for work. Online time varied with only a small number indicating they were online for less than one hour per week either at home or work. Over half spent 1-5 hours online, a quarter spent 5-10 hours and the remainder spent 10-20 hours or more connected. Students indicated they spent around the same amount of time online at work as at home. Emailing and Internet searching were the most cited online activity. These were followed by online banking and shopping. Given the relatively young age profile, a smaller than expected proportion of students indicated they used social networking sites of which Facebook was by far the most popular. This was followed by U-Tube, chat rooms and MySpace. Almost a third of students made no use of social network sites. Over half the students used their mobile phone for up to 30 minutes per day with a further quarter using one for up to 60 minutes. A sizeable number used their phone for more than one hour per day and a small number either had no phone or were infrequent users. On average students sent and received six text messages per day but these ranged up to 50-70 for heavy texters. The times for PDA use were inconclusive as very few students used one and this was generally for less than 30 minutes per day. In contrast over two-thirds used an MP3 player although a third indicated not using this every day but a quarter indicated using one for up to 60 minutes per day.

The average daily time spent online or using mobile technology was estimated at 1.5 hours.

Pre-Course Anticipated Study Time

If the average time values are added together they total 16.4 hours per day, with the remainder assumed accounted for by sleep. This gives a broad indication of how students

allocate their 24 hours, and provides a useful starting point from which to investigate the re-allocation of time to create space for study. In this respect the final pre-course question asked students to estimate the weekly time they anticipated devoting to study.

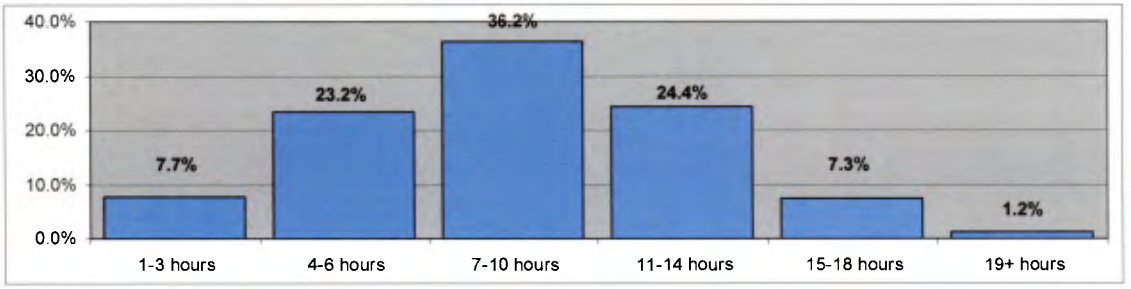


Figure 5: Anticipated Weekly Study Time from Pre-Course Questionnaire

The interesting result from figure 5 is that, despite the course description indicating a time requirement of 14 hours per week, almost 70% perceived that they could only commit up to 10 hours. This may have been based on experience if they previously completed the foundation module or a simple estimate of their existing commitments. More detail of how students approached study was consequently flagged for further investigation in the post-IMC module questionnaire.

DIARY – ACTIVITY TIMES

363 students completed and returned diaries for inclusion in this research. The summaries of the average daily time commitment to the coded activities and the average hours recorded by day of the week divided by location and face-to-face attendance are shown in appendix 13.

Statistical Data

The descriptive statistics for the ten activity codes are summarised in table 5.

Descriptive	Resting	Domestic	Social	Internet	Leisure	GDP Study	GDP Admin	GDP VLE	Work	Travel
Mean	58.70	14.63	11.25	2.76	13.41	13.43	2.64	3.23	39.06	8.31
Standard Error	0.41	0.40	0.42	0.13	0.66	0.31	0.19	0.13	0.49	0.24
Median	59.00	13.50	10.50	2.17	11.00	12.83	1.00	2.83	40.00	7.50
Mode	59.00	13.00	0.00	0.00	0.00	12.00	0.00	0.00	40.00	5.00
Standard Deviation	7.87	7.66	8.01	2.56	12.62	5.88	3.69	2.46	9.34	4.57
Sample Variance	61.90	58.72	64.22	6.54	159.38	34.55	13.64	6.05	87.29	20.89
Kurtosis	4.41	3.80	6.26	3.67	13.97	0.75	5.56	3.39	3.17	0.70
Skewness	-0.77	1.45	1.52	1.57	3.15	0.53	2.27	1.40	-0.80	0.84
Range	68.50	49.00	67.50	16.00	96.00	36.00	20.67	16.33	75.00	24.00
Minimum	15.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Maximum	83.50	49.00	67.50	16.00	96.00	36.00	20.67	16.33	75.00	24.00

Table 5: Weekly Time Activity - Summary Statistics

The indication from the data is that only GDP study and travel show a kurtosis value approximating to the normal distribution. This is confirmed from graphical plots that also show that work, social, leisure, Internet, GDP VLE, resting and GDP admin are skewed distributions. The ranges are in some cases considerable due to extreme outliers, with all activities, apart

from resting, including multiple zero values. This was highest for GDP admin (23%) and Internet (16%) with the remaining activities recording less than 6% zero time. Consequently the standard deviations are high with only Internet and GDP VLE showing some consistency with values approaching 2.0. Graphical plots of the ranked time values consistently show a linear variation across students. At the extremes, 3-9% of students averaged particularly low or high times for individual activities, as illustrated in figure 6, indicating that approximately 80% of students follow the linear gradient. This serves to emphasise the variation in demand for time within activities, and the major divergences that exist at the extremes.

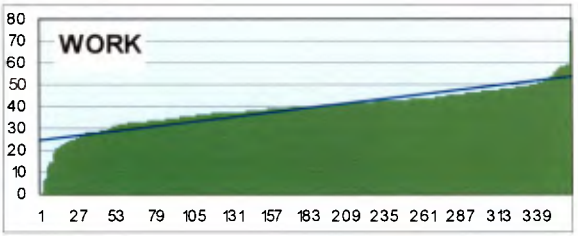


Figure 6: Weekly Time Activity (hours) – Ranked Results (All Students)

The linear distribution of values in figure 6, and similar plots for the other activities, suggest that a relationship between pairs of time activities may exist. This was tested by calculating the Pearson correlation values shown in the matrix in table 6, however, rather than establish that strong associations were present the results tend to confirm the diversity of the values.

Activity	Resting	Domestic	Social	Internet	Leisure	GDP Study	GDP Admin	GDP VLE	Work	Travel
Resting	1.0000									
Domestic	-0.1039	1.0000								
Social	0.0923	-0.2014	1.0000							
Internet	0.0075	0.0509	0.0084	1.0000						
Leisure	-0.3512	-0.2152	-0.2503	-0.0875	1.0000					
GDP Study	-0.0070	0.0589	-0.2080	-0.0826	-0.2255	1.0000				
GDP Admin	-0.0832	0.0101	-0.1187	-0.0346	-0.1735	0.0762	1.0000			
GDP VLE	-0.0286	0.1634	-0.0479	0.1818	-0.1536	0.1054	0.0738	1.0000		
Work	-0.0461	-0.2942	-0.1552	-0.1541	-0.2500	-0.1285	0.0116	-0.1823	1.0000	
Travel	-0.0990	-0.0426	-0.1047	-0.0096	-0.1860	0.0057	-0.0510	-0.0491	0.0831	1.0000

Table 6: Pearson Correlations (n=363)

Across the pairings there is generally only very weak correlation between times, confirmed by scatter plots. The Pearson correlation technique is most satisfactory when applied to linear relationships. Consequently the weakness in correlation can partly be attributed to the high and low values at the extremes, as illustrated in figure 6. It can also be attributed to the generally low correlations found in social science research (Lazarsfeld, 1956; Schield, 1995).

Although not strictly appropriate for non-Gaussian distributions, the results from two-tail t-tests yield p-values that show coincidence in results for all cases apart from GDP admin and Internet, leisure and domestic, and leisure and GDP study. However, given the relative weakness in the relationships generally it is not considered that these statistics alone can offer conclusive findings within or between the time activity codes. Correlations between the diary entries and questionnaire responses were also calculated although this was limited as the

majority of data was categorical. Again these showed very weak correlation, mainly ranging between -0.3 and + 0.3, however where numeric values were available the result tended to be in line with the values in table 6. Overall the value of correlation for this research was limited and provided indicative values only. Despite their lacking in statistical relevance the relative difference in the correlations proved useful in directing attention to trends that warranted particular attention. In addition to those associated with study, work, domestic and social time these related to employment factors, such as length of experience, the time allocated to assignment completion, the time protected for study and, most noticeably, the age of students.

Attempts were made to group students using cluster analysis, however these failed due mainly to the categorical nature of the data, but even after conversion to a numerical base no meaningful results could be determined. The conclusion drawn from this was that numeric analysis based on values would not work for this research but that comparative analysis was more realistic. In a final attempt to use software to identify clusters inspiration was taken from long chain DNA analysis and all diary and questionnaire variables were converted to alpha values and concatenated into a single string of letters. Use of DNA software was neither appropriate or financially viable but an Excel add-in was found that identifies differences in spelling based on fuzzy logic. This enabled a list of 'words', or strings in this case, to be examined and to group them into similar clusters depending on whether up to 6 letters were different. As with cluster analysis the fuzzy analysis also failed to identify realistic groups until the granularity of the data included was reduced to a point where the groups effectively described themselves. The inability of standard statistical method to offer meaningful results reinforces the criticism of their use implied by Gershuny (2000, p120) and Avis et al. (2001), and affirms the need for the disaggregate analysis presented in the next chapter.

Tempograms

Tempograms provide an aggregated overview of time point data and the ebb and flow of time (Michelson, 2005, pp53-67). For students in employment these are more informative when differentiated by weekdays and weekends as shown in figures 7 and 8.

During the week the predominant activities were work and rest. Domestic tasks and commuting were the principle early morning activities. These appeared again over a longer period from mid afternoon onward. Social and leisure activity took place during the lunch period but mainly during the evening. Study time gradually built up during the day but mainly this occurred during the evening reaching a peak between 9pm and 10pm. Accessing the Internet and the VLE was mainly during the evening with barely any access early morning.

Rest was more prolonged at weekends. Work and travel were still represented but mainly for non-UK students required by custom or religion to work on Saturday or Sunday. Domestic tasks occurred throughout the day but tailed off as social activity increased and this continued into the early hours for some students. Leisure was mainly taken throughout the afternoon and evening. It could clearly be seen that the bulk of time devoted to study occurred during the morning and

afternoon together with a steady increase in access to the Internet and VLE. The relatively high occurrence of GDP admin reflected the time students attending the face to face in Reading allocated to this code.

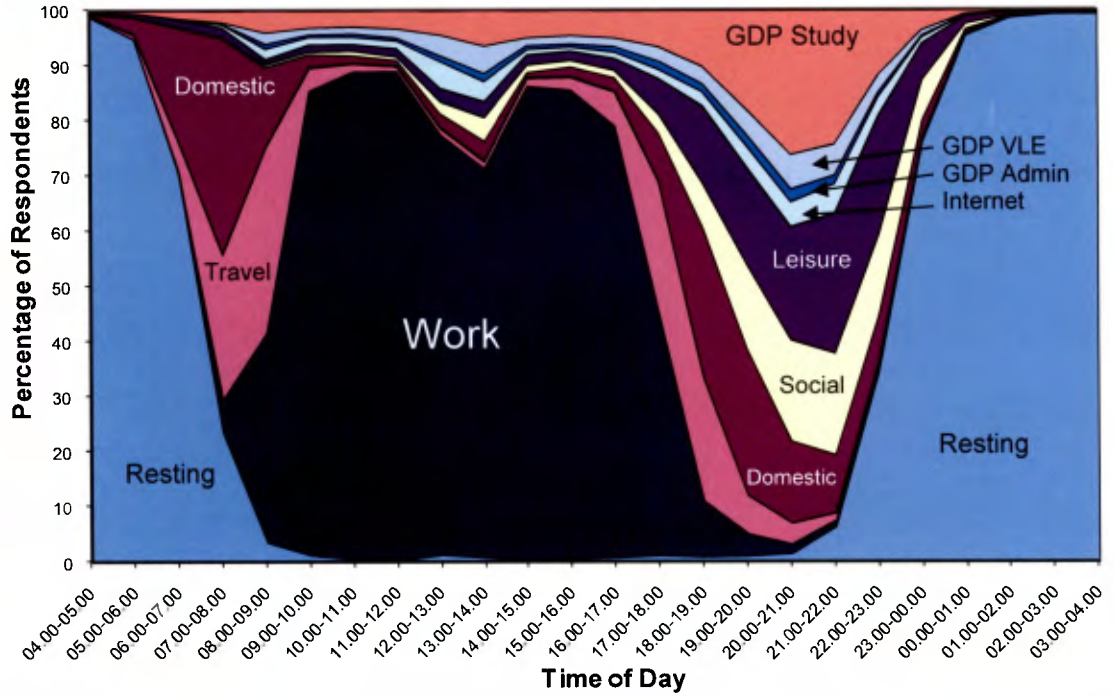


Figure 7: Weekday Tempogram

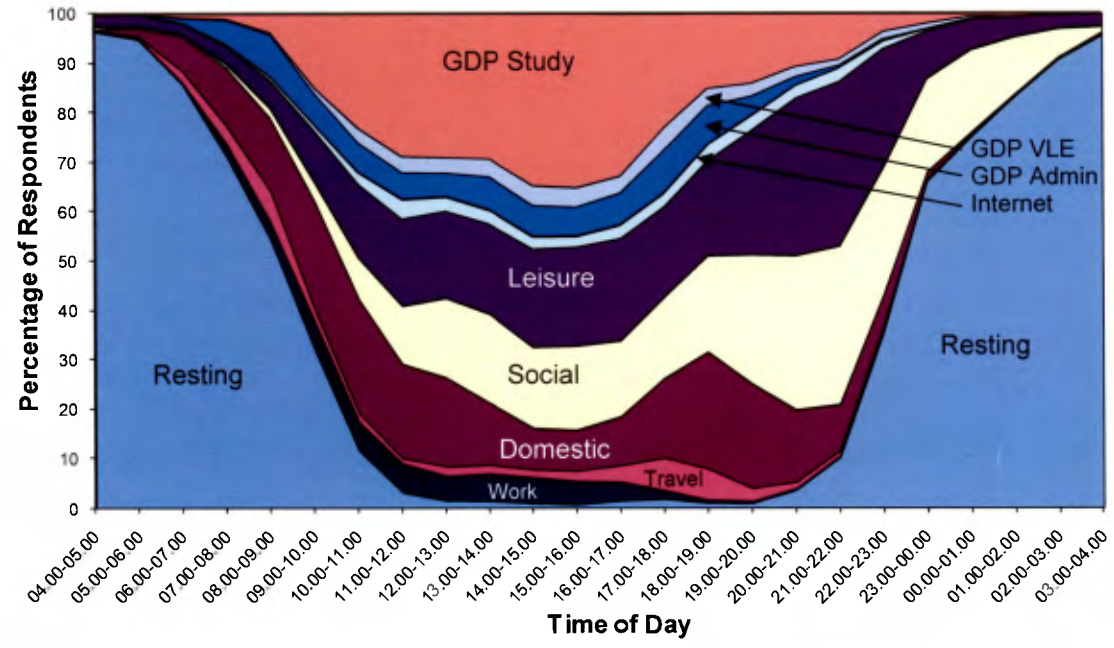


Figure 8: Weekend Tempogram

The Student's 'Great Day'

Based on the average times tabled in appendix 13, the proportional matrix in figure 9 illustrates the 'great day' for all students (Gershuny, 2000, p26). This expresses the percentage

of the week allocated to each of the coded activities plotted horizontally and aggregated into the broad categories of rest, work, study and non-work. This shows the relative proportion of the week accounted for by each category. Vertically the activities that constitute each of these categories is plotted to show the relative weekly proportion of each within the category. The matrix shows that work and rest together account for almost two-thirds of the average student's week. Travel related to work extends the working day by almost 20% although this is not just commuting and includes other work related journeys. Across the students, leisure occupies almost as much time as domestic activity. It might be anticipated that this would be less than for social, however it can be assumed that spending time relaxing in front of TV, for instance, is classed as leisure. In this respect the proportion of social time can be considered to be quite high, although this depends on how students coded the margins of leisure and social time. Internet use at 1.6%, equal to 2.7 hours per week, may not be considered significant, however, it is an added diversion for time depending on whether it has substituted for other activities previously classed as domestic. The pre-course questionnaire suggests that this is not the case but there is potential for confusion with other uses of technology, such as listening to music, which could involve Internet access but also be classed as leisure. It is notable that VLE and admin absorb almost one third of the time allocated to the course, however, this reduces if the additional time recorded for attendance at the Reading face-to-face is excluded. At 8% of the week the time recorded in study equates to 13.5 hours which is fractionally less than the 14 hours per week recommended in the course documentation.

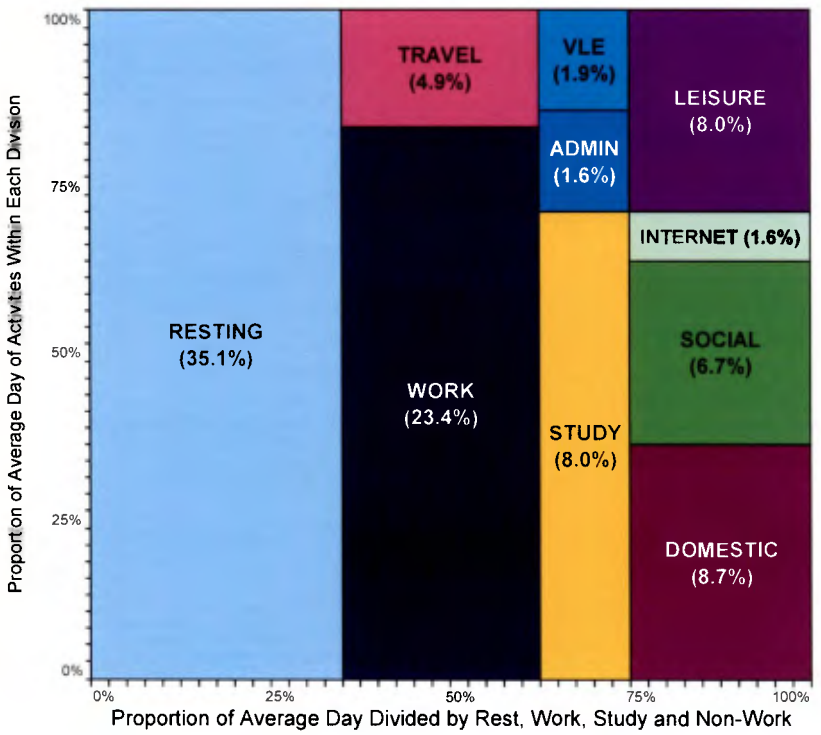
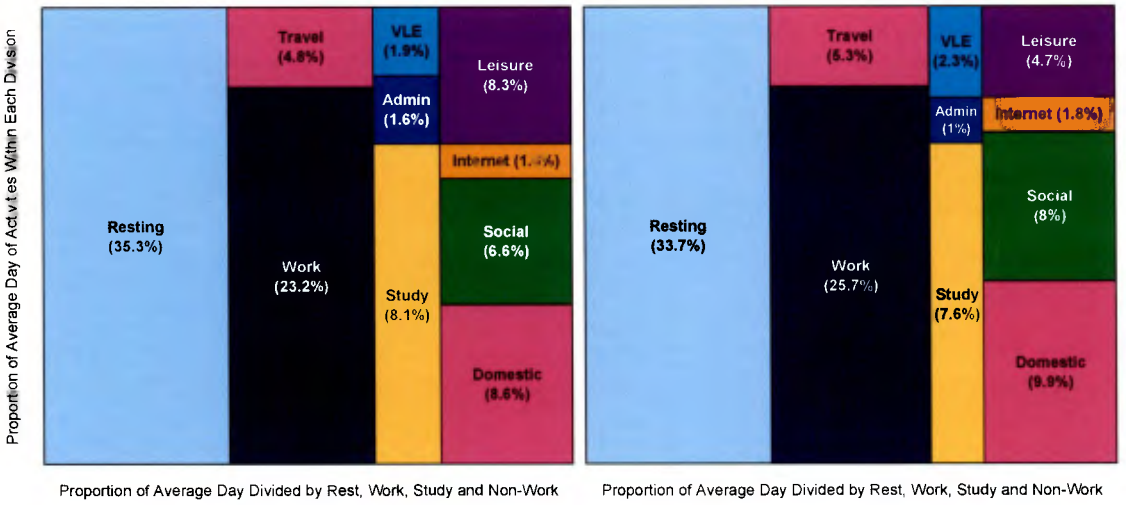


Figure 9: Proportional Weekly Time Matrix – All Student Diaries

Acknowledging the ten-fold difference in sample sizes the findings, summarised in figure 10, broadly indicate that there is little difference between UK and non-UK students. Within these groupings there is a small difference in work and travel, with non-UK students tending to work 4.3 hours longer than UK students and take almost 45 minutes longer for travelling. Both groups of students spend about the same amount of time on the Internet, however, UK students devote almost twice as much time to leisure activity. In contrast non-UK students give more time to domestic and social activities per week.



UK Students (331 responses) **Non-UK Students (32 responses)**

Figure 10: The Great Day – UK and Non-UK Students

In respect of time for study there is only a small difference with UK students averaging 13.6 hours for the week against 12.7 hours for non-UK students. This is reversed for VLE time which was 3.9 hours for non-UK students compared with 3.1 hours for UK students. Non-UK students indicated 1.7 hours for admin time which was marginally more than the 1.0 hours recorded by UK students who did not attend the face-to-face. Overall the indications are that the longer working hours outside the UK draws time away from leisure, rest and study but that social and domestic duties are more sacrosanct than in the UK.

The conclusion from both the tempograms and the matrix is that aggregate analysis offers a clear initial overview of the time allocation of students, but cannot provide detailed answers. Review of the proportional matrix for each student, as illustrated in appendix 11, only confirms the relative constant proportionality of rest and work but beyond this, each student varies in how they choose to distribute their study and non-work time.

DIARY - ONLINE AND LEARNING ACTIVITIES

The summary data collected from the diaries in respect of time spent on reading / watching, thinking / reflection, making notes, online research, quiz questions and VLE participation is

shown at appendix 13. For clarity, the VLE clock times for non-UK students were adjusted to GMT for inclusion in the analysis.

General Forum Activity

The average number of messages posted to all IMC forums by 491 students was 13 of which one third were original posts and two thirds were replies to messages. The timing of message posting showed that over half were posted during the week scheduled for the activities but almost a third were posted up to 7 days later. A number were posted before the scheduled week and a small proportion, presumed to be by students seeking credit for participation, posted much later.

Figure 11 shows that the timing of forum activity remained relatively constant during the morning period before steadily increasing to a peak in the evening. This agrees with the tempograms and also confirms, that contrary to expectations, students do not make substantial use of the VLE during lunch breaks.

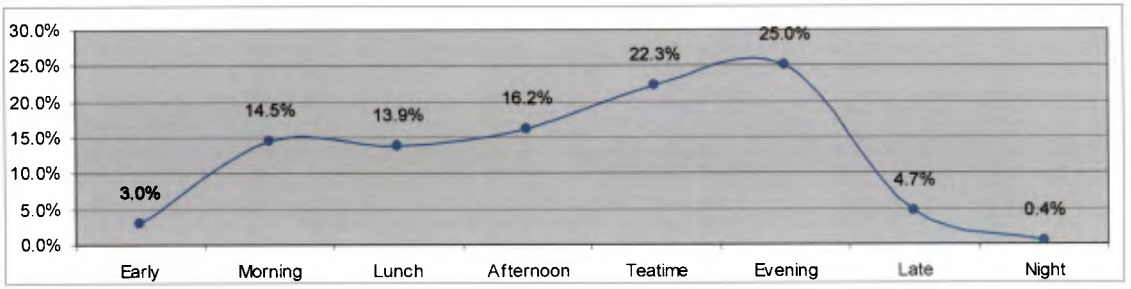


Figure 11: IMC – Daily timing of message posting to forums (% of all messages)

The distribution of messages posted before, during and after the module are also revealing. As figure 12 illustrates students posted messages from when the forums opened one week prior to the start of the module and continued for up to 3 weeks after the module officially ended. It is also apparent that distinct peaks in the number of messages posted occurred at the start of the module and particularly at the start of the diary week. This may reflect student's need to obtain clarification or that something new increased their engagement.

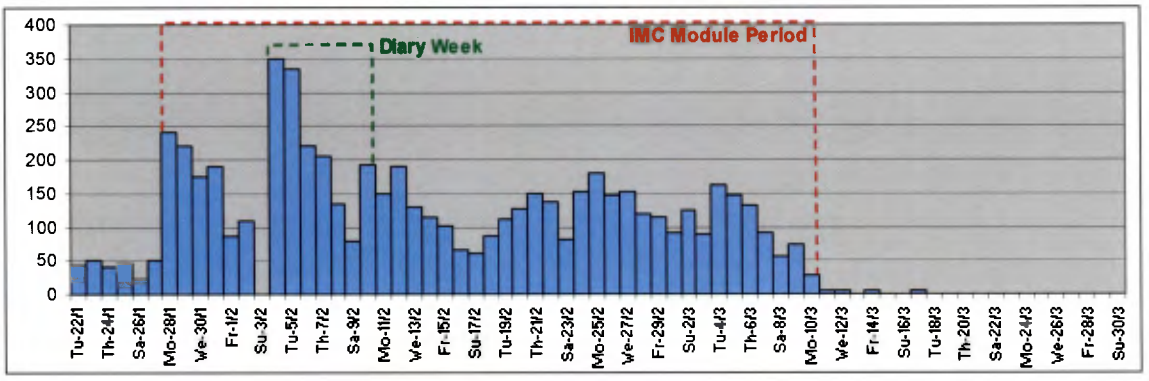


Figure 12: IMC – Message posting to forums across the module period

Learning Activities

Within the IMC module various types of learning activity were employed. As shown in appendix 1 the student was advised of the anticipated time required for completion of each activity. These were based on rules of thumb where these existed, and in other cases the guide time was estimated by the course team.

Five activities were scheduled for study during the diary week and the following summarise the findings in respect of the reported times for each.

Web search activity

- *Activity 2.3 Surfing the Web*

The activity required students to find and assess resources on the web within a guide time of 60 minutes. The time indicated by students ranged from zero to 290 minutes with an average of 58.5 minutes. Within this students indicated an average of 26.3 minutes for the main online research element and between 8.4 and 10.7 minutes for the reading / watching; thinking / reflection and making notes elements. VLE participation was not required but students averaged 5.2 minutes for general discussion. The results suggest that the guide time was accurate, however, with a modal value of 60 minutes it may be that the answers were chosen to fit with the College's expectations.

Research activities

- *Activity 2.4 Global Warming Research*
- *Activity 2.6 Love Lane Boundary*

Both activities required the student to discover information related to a problem and to share and discuss their findings within their VLE tutor group. For the global warming activity the source of information was the web, and for the boundary dispute students were required to use the case study and course materials. The guide time for each activity was estimated at 120 minutes. For the first activity students recorded an average time of 124.5 minutes within a range of zero to 540 minutes. The average for the second activity was 147.1 minutes within a range of zero to 810 minutes. In both cases the modal value was 180 minutes. As with the web search the main element was the research and students averaged 47.3 minutes and 74.4 minutes respectively. The longer time for the boundary problem reflected the greater time needed for reading the materials as this was a new subject for most students and, compared with the online resources, the reading was considerably more academically complex and presented as black and white text and imagery. In respect of the former, although the College's study papers are checked for readability by its editors, the volume and subject matter can make them denser to study than other resources, such as those used for the global warming task. In the latter respect colour in the diagrams would have made the material for this subject more quickly comprehendible. As expected students spent more time for both these activities in reading /

watching; thinking / reflection and making notes. The times recorded were very similar ranging from average times of 16.2 to 21.7 minutes; and from 17.8 to 23.1 minutes respectively. In both cases students were specifically instructed to share their findings and again the average times were close at 21.6 minutes and 20.1 minutes respectively for the discussion. The online discussion allowed further analysis of the messages posted. For the global warming activity students averaged 0.34 original messages with a maximum of 2. In contrast students were more prepared to reply to messages which averaged 0.7 per student with a maximum of 18. Compared with this the number of original messages posted for the boundary dispute activity was less at 0.24 per student and a maximum of 4. Replies to messages were also less at an average of 0.55 messages per student and a maximum of 10. The reduction in messages posted for the boundary discussion may be explained by the relative difficulty of the task which required more precision than opinion. This may also explain the difficulty in keeping up with the activities that students demonstrated. Figures 13 a and b contrast the pattern of message posting between the two activities. For activity 2.4 most messages were posted within the week whereas for activity 2.6 most were posted a week or more later.

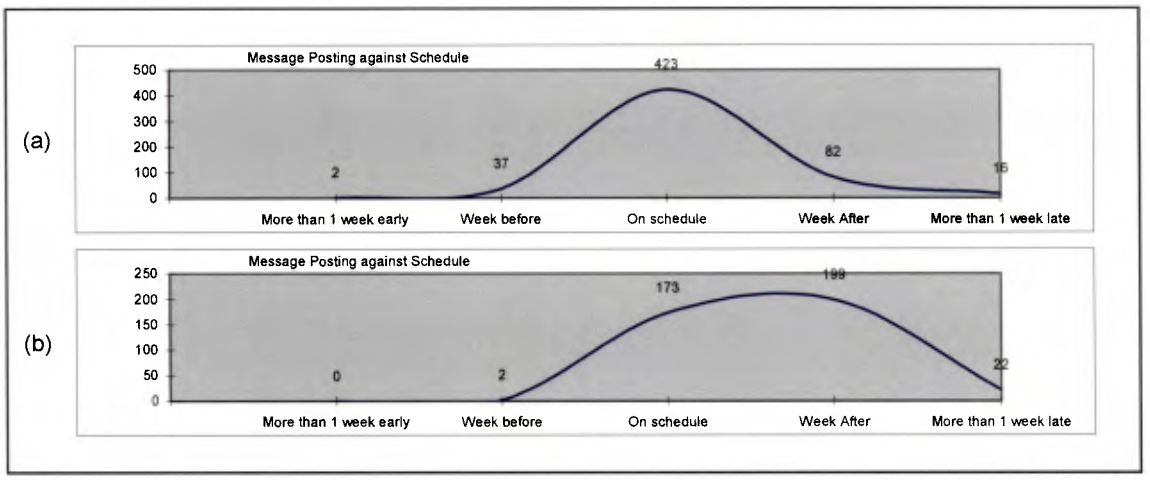


Figure 13: Variation by number of messages in timing of postings (a) Activity 2.4 (b) Activity 2.6

Case study activities with self-test quizzes

- *Activity 2.5 Beta Build Rail*
- *Activity 2.7 Englefield Estate*

For both of these activities students worked with case studies. Beta Build introduced students to the concepts of business information systems around a hypothetical company and Englefield provided exercises in using maps based around a genuine estate. Unlike the research activities students were not required to take their findings online but to test their knowledge and understanding through online quizzes with feedback answers. Each quiz included 10 questions and were estimated to take one hour for answering and reading feedback. The guide time for each activity was 120 minutes in total. The average times recorded for the two activities were closer to each other than for the research activities at 137.9 minutes for Beta Build and 164.0

minutes for Englefield. The spread of times were also similar ranging from zero to 820 minutes and zero to 870 minutes respectively. It is interesting to note that, as with the research activities, the modal value for both activities was 180 minutes suggesting that the values recorded were more perceptions than actual times. Both activities required students to use unfamiliar knowledge and this is reflected in the high reading times of 67.1 minutes for Beta Build and 51.1 minutes for Englefield. Students took a further 19.7 minutes and 29.6 minutes for thinking / reflection and 19.4 minutes and 23.5 minutes for making notes respectively. The higher thinking / reflection time for Englefield can be attributed to the student having to interpret an OS map after completing the reading. The time for completing the quiz was almost identical averaging 21.6 minutes and 21.8 minutes respectively. Although not required some students used the VLE to clarify the tasks averaging 4.1 minutes to 6.4 minutes across the two activities.

The findings here do indicate that, in line with the literature, pre-existing knowledge plays an important role in determining the duration and timing of study activity. Five activities are too few to provide any conclusive answers but the indications are that the following values are consistent with the diary times:

- quiz questions average 2-3 minutes;
- reading for and analysing a case study requires 2-3 hours;
- a web search task requires ¾-1 hour to complete;
- 20-30 minutes is the length of time a student will give to participation in online discussion.

POST-IMC MODULE QUESTIONNAIRE

310 students out of the 470 who took the module completed the questionnaire and the results and percentages are summarised at appendix 13.

Time Experience

A relatively small number of students considered that they had more, or a lot more, time available for study than they anticipated. Almost one third considered the time available was as they expected but over a third considered they had less time. A sizeable number considered they had a lot less time. The major pressure on their time resulted from workplace demands, cited by almost one third of students. This was followed by social, study and domestic demands respectively. Health problems and leisure demands were less frequently experienced pressures followed by course demands. Only a few indicated that they had not experienced any pressures on their time. The unforeseen events cited as diverting attention included bereavement, marriage planning, expatriate travel, IT and Internet connection problems, holiday, childcare and completing applications to professional bodies. Generally the majority of students considered they had managed their time reasonably or very well, however, a third indicated they had struggled with this and a small proportion considered their management of time was poor.

Almost half indicated they had found 7-10 hours per week for regular study with a further quarter indicating this to be 11-14 hours. Only a few indicated a regular time of more than 14 hours. Of concern were a sizeable number indicating 4-6 hours per week, a small minority who indicated just 1-3 hours, and 12 students who could not find any regular time. The most common intended change to study arrangements cited by students was to make better use of gaps in work time, followed by reducing social and leisure activities. A sizeable number aimed to reduce their domestic activity or to make better use of commuting time. Only a small proportion indicated that no change was necessary alongside a similar proportion who considered that no change was possible. In respect of attendance at the face to face in Reading or Hong Kong, a third had attended. The most common reason for not attending, cited by a fifth, was other commitments followed by inconvenience, lack of time, distance and cost.

Time in Study

The maximum length of time for continuous study varied, with over a third indicating 40-60 minutes and a fifth indicating 60-90 minutes. A sizeable number indicated a duration of 90-120 minutes with a few indicating they studied continuously for longer than 2 hours. Similarly a sizeable number indicated 20-40 minutes as their maximum with a small minority indicating this to be less than 20 minutes. Over half the students reported taking one break per hour of study but over a third reported none and a minority took more than one break. The length of breaks varied with over half taking a break of between 5 and 10 minutes. Longer breaks of between 15 and 20 minutes were taken by almost a fifth of students with a handful reporting even longer breaks. Almost a quarter indicated they took no break which is broadly consistent with those indicating no breaks per hour. The most common reason given for taking a break was to rest the brain followed by to have a drink, to rest the eyes and to use the toilet. Studying between 9am and midday was the preferred time for over a quarter of students followed by 7-10pm preferred by a similar number. A consistent tenth of students preferred either the early evening between 5-7pm, the early morning between 6-9am or the afternoon between 2-5pm. A smaller proportion found 10pm to midnight best and just a handful preferred to study during the night hours. Only a very small proportion liked to study during the lunchtime period between midday and 2pm. Overall these results tend to contradict the diary tempograms, suggesting that a gap exists between the student's preferred and actual use of time.

Time and Learning Activities

Over half the students found the pre/post quizzes and ice-breaker activity reasonably worthwhile. The quizzes were considered not very worthwhile by a fifth but very worthwhile by almost a quarter of students. In contrast the exact reverse was found for the online ice-breaker activity. In line with the diary responses around half the students found the suggested times for the learning activities to be about right, however, variances existed that contradicted times recorded in the diaries. The web research activities were considered too long by a third of

students and a similar number found the case study activities to be too short. The self-study and case study activities (linked to quizzes) were found to be too short by over a quarter of students. In comparison the knowledge testing self-assessment quizzes were deemed to be too long by a fifth of students. Overall the specific responses were generally consistent with diaries indicating that adjustment to times is necessary.

Participation in Online Forums

Very few students indicated that they did not read or post any messages in the forums. This was not surprising as each assignment included marks for a student's participation in the VLE forums. Even so a sizeable number identified themselves as lurkers only reading the messages and almost a quarter indicated they read the messages but only posted replies. Another quarter indicated they posted original messages as instructed and read other's messages but did not fully engage so posted no replies. The largest group representing almost half the students indicated full participation and posted original messages, read those of others and posted replies to these. Given the VLE access analysis this appears an exaggerated view of the participation by most students. The reasons given for non-participation were mostly due to the student falling behind the study schedule or having no incentive as everything had already been said by other students. Handfuls of students also cited lack of computer access, not understanding the task and seeing little value in their participation.

Overall Learning

Almost two-thirds of students indicated they had referred to the study skills resource once or twice, with a quarter indicating no need at all. A sizeable number indicated referring to the resource weekly and four students indicated they referred to it daily. The time taken to complete the two assignments averaged 14.2 and 16.4 hours respectively, although extremes existed with students quoting the time taken as ranging from 2 to 72 hours. Overall the majority of students indicated that they had learned all or most of the subject during the module. Success was not complete as almost one third indicated they had only learned some of the subject with a small minority indicating little or no learning.

Change in Study Time

Half of the students indicated their projected study time as corresponding with their initial perception of the required time, as illustrated in figure 5, and anticipated making no change. As shown in figure 14, approximately a quarter indicated increasing this by up to 4 hours per week particularly if this had initially been 7 hours or less. The remaining quarter indicated they had revised their time downward, mostly by up to 4 hours per week. Of real concern was that most of the students indicating a reduction did so from an original anticipated time of 7-15 hours thereby placing them well below the advertised study time.

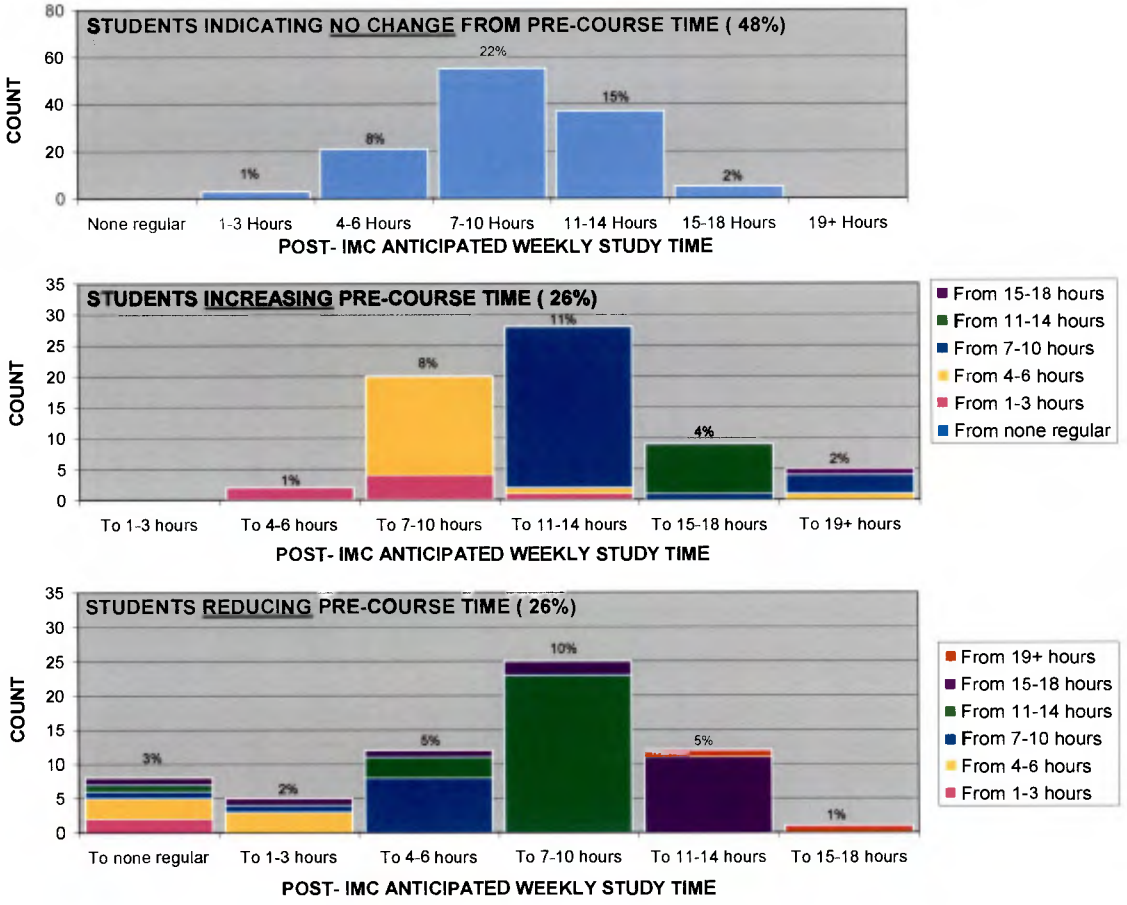


Figure 14: Change in anticipated study time after IMC module

CHAPTER CONCLUSION

This chapter provides a flavour of the diversity of students and how their time was broadly distributed across the survey week. If a typical student were to be defined within these findings he or she would be portrayed as aged 21-32, working full time in the UK and highly motivated by career development. They would be degree educated, mainly within the previous 5 years, with good study skills and computer literacy. They would have good subject knowledge of general management but only moderate knowledge of specialist subjects. Generally in a relationship, they are likely to be independent of children and parents and enjoy an active social life. They live within a reasonable travelling distance of their workplace and generally benefit from flexible working arrangements. The question is whether these students fall into common groupings in respect of their time use. The summary data suggests that groups exist but the analysis is not conclusive, generally showing that the results are not normally distributed and only weak correlation exists between the coded activities. Cluster analysis fails to identify groups of any significant size other than large self-evident groups such as outlined above. This failure to identify specific groups or relationships using conventional techniques may not be surprising as results from bio-science research practice show that 'biological data never follows a Gaussian distribution precisely' (Motulsky,1998), making it risky to rely on statistical measures alone to

uncover relationships or groups. The students in this research share the characteristic of being educated to a similar academic level and lack detailed knowledge and skills in the subject areas. In this regard they may be considered as not untypical of many distance learners, however, the inability to discover common groupings raises questions as to the value of average times if they vary in all other respects. The diaries show steady variation in time allocation across domestic, leisure, social, work and travel activities with only resting being more or less common. The diary times also draw attention to the extremes of high and low times and, although in a few cases these can be attributed to diary completion error, the frequency of their occurrence suggests that this is not chance alone. Consequently the extreme times appear to be as important to understanding time use as the average values indicating a more holistic view is required. There is implication for time management in the existence of extremes for some students. The post-IMC questionnaire reinforces the time pressures that students experience and the difficulty they have in managing their time, particularly at the start of their studies. The proportional matrix in figure 9 shows that work, travel and rest account for over 60% of the student's week. Of these the demands of employment represent the greatest pressure on time but social, domestic and travel additionally have potential to affect time management; and these appear to be more significant for non-UK students. The inability of some students to manage their time suggests that resolving this issue cannot be restricted to study alone but has to extend to life in general. For example, what is the contingency if a student cannot complete most of their study and VLE use at weekends or early/mid-evening on weekdays as the findings show? In the case of non-UK students how do they manage study around a greater commitment to social and domestic activity and longer working hours? The disaggregate analysis reported in the next chapter potentially offers a better means for understanding the impact of different factors on student's time. As emphasised in the literature, the ability to manage time affects the efficiency of study. The findings indicate that most students can study for between 40 and 90 minutes, however, this is reduced by the number and length of breaks taken. The indications are that within a one hour period students are likely to take at least one break of between 5 and 10 minutes but less motivated ones may take further breaks and these may extend up to 20 minutes. Consequently the engaged time as defined by Ralph (2004) may range between 20 and 55 minutes per hour so influencing the optimum study time. Similarly the five learning activities provide a snap shot of both when and for how long students are prepared to engage with study. Although definitive rules of thumb for online study are not established the findings indicate that reading times were judged to be consistent with the rules of thumb established for textual study, but that the time allowed for online quizzes was excessive. Times taken varied but there is evidence that new study using unfamiliar concepts and practices take considerably longer and reduce, or delay, online participation. At the same time new or novel activity appears to stimulate participation, although the indications are that setting durations for online activities that take longer than 2-3 hours is unrealistic. Overall the findings from this chapter suggest that the majority of students can find the study time required so long as they feel sufficiently engaged with the content of activities, and other factors do not interfere. The impression formed is that patterns of time are not fixed and that students are prepared to adjust time either as a

result of their experience or to match their needs but that significant differences exist between their perceived and actual times. In the latter respect the results tend to support Gershuny's assertion (2000, p268) that there is enough similarity between estimates from diaries and questionnaires to say that questionnaire responses can be a 'reasonable proxy for diary data'. Although the pre-course and diary average times give an appreciation of the time distributions, they do not provide any clear indication of how students re-allocate their time to create or optimise time for study. This is acceptable if general distributions of time, as shown by the proportional matrix in figure 9, are required but not when greater understanding is needed. Consequently the next chapter presents a deeper analysis of the diary times in relation to students' characteristics.

Chapter 5

DAILY ACTIVITY AND TIME

"Nothing is a waste of time if you use the experience wisely."

(Auguste Rodin)

The challenge when time is 'exchangeable as a commodity' is to incorporate study into a lifestyle that is already divided into a multiplicity of time units separated into leisure, sleep, eating, work and so forth (Adam, 1990, p113). This chapter examines the variations in the use of time in relation to student's characteristics or circumstances as revealed by the disaggregate analysis of the student diaries and the pre-course and post-IMC module questionnaires. The principal findings are discussed alongside those from the longitudinal study that addressed changes in time use made by 26 students over the subsequent three modules. The stage 4 questionnaires are shown at appendices 7-9 and for ease of reference the summary data is shown at appendix 14.

For the disaggregate analysis each combination of diary activity and questionnaire response was analysed using the spreadsheet shown at appendix 12. To contrast the variation in time use two values are shown for each questionnaire response. Referring to appendix 12, the first (tagged as IN) shows the average time recorded for the coded activity (e.g. GDP VLE) by students whose response to the question (e.g. social life) fell within the particular category (e.g. non-stop). The second (tagged as OUT) shows the average activity time for those students whose response fell outside the category (e.g. regular, occasional, infrequent). The resulting counts, maximum, minimum, average and standard deviation values are tabulated and the average values shown graphically. Differences in average values were colour coded to highlight the extent of variations. Both the numerical results and charts were examined to identify trends and/or spikes as indications of variation in time use. The criterion for inclusion in this chapter was that a trend was clearly visible across the categories of questionnaire response, or one particular category stood out as exceptional against the other categories. Although the correlation analysis described in the previous chapter did not produce strong results, these were used, where relatively strong values were available, to direct attention to relationships that warranted specific consideration.

As time in study and time using the VLE are of primary interest a graphical overview of these is presented for each coded activity. The two time charts are based on the same procedure as described above. They illustrate the variation in the average weekly activity time as the amount of time recorded in the diaries varies for study or VLE use. The third chart illustrates the number of episodes of different durations recorded for the coded activity. Students were allocated to a time range on the basis of their recorded diary time for GDP Study or GDP VLE as applicable. To contrast the variation in time use two values are shown for each time range. The first shows the average time recorded for the coded activity (e.g. Work) by students whose study or VLE time fell within the range. The second shows the average activity time for those students whose

study or VLE time fell outside the range. This differentiation allows a more meaningful comparison of average values that highlights where spikes in time use by students within a range occur or trends in time use exist across ranges.

WORK RELATED ACTIVITIES

These consider the diary findings in respect of work and travel.

Work

The GDP Study chart in figure 15 illustrates that the average weekly working hours was generally constant for all students outside the study time ranges denoted by the red columns. For students within the ranges, shown as the blue columns, work had little bearing on the time given to study up to around 26 hours per week beyond which the hours worked reduced, with part-time working, as study increased.

A similar variation can be seen for GDP VLE time which broadly increased as the hours worked reduced in contrast to the students outside the ranges whose work time remained fairly constant.

The count of work episodes show that the commonest length of work episodes were between 3-5 hours but that short episodes of up to 30 minutes were also frequent. Longer episodes of around 9 hours were recorded by a minority of students who were identified as working outside the UK.

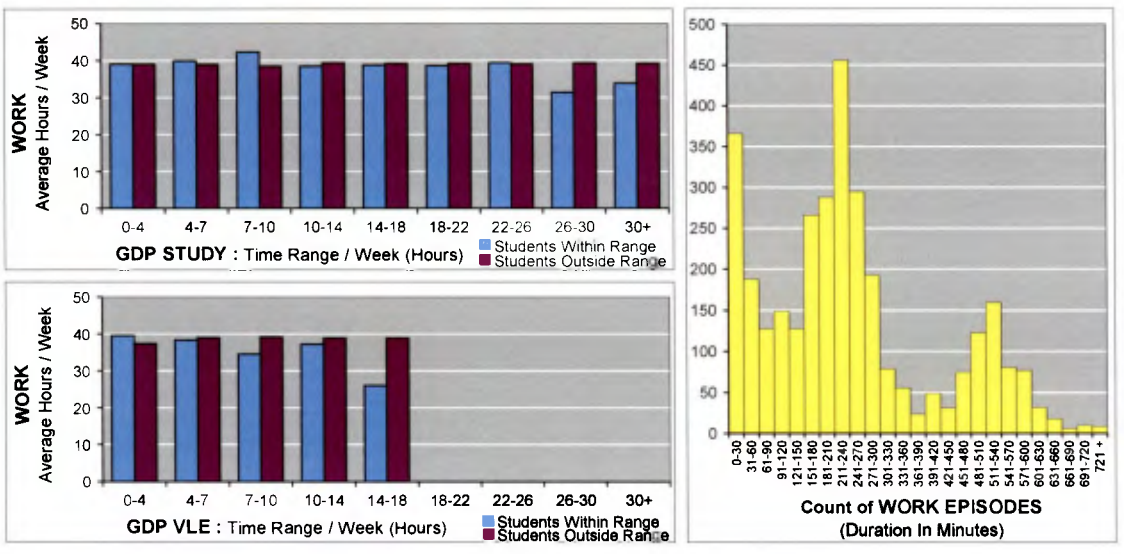


Figure 15: Variation in Work / Study / VLE times and Episodes of Work activity

The pre-course findings show the number of hours worked per week was less for women (by 3 hours) and tended to reduce with age. Students living alone (particularly in flats and bedsits) recorded higher work hours than those living with parents or with a partner. Hours worked were also higher for those with dependent children, however, better qualified students appeared to

work fewer hours per week. The work time recorded by students increased for non-UK students, and particularly for those working as expatriates. Career motivation accounted for increased work time, with public sector employees recording fewer hours than those in the private sector. The time recorded by students working part-time or on term contracts was less than for full-time employees, and also reduced as the flexibility of employment increased. Students with no computer at home tended to work longer hours.

An increase in regular study hours with reduced number of work hours was evident from the post-module results, and this was mirrored by students' ability to manage their time which reduced as work time increased. In respect of flexible working, diaries indicate that the length of the work day increased as the number of days worked reduced – 11 hours average for 3 days compared to 7 hours for 5 days. There was an indication that work hours added to time off for study amounted to full-time hours. Generally a better mark for assignments was achieved by students working fewer hours but it was noticeable that the amount of time given to completing the assignments broadly increased as the hours worked increased.

Work has the greatest impact on the professional student's time (Kember, 1999; Brooks, 2006; Gershuny, 2000, p60; Arthur and Tait, 2004) and, apart from sleeping, has the largest time allocation of any single activity so is the greatest competitor for time. In the context of distance students the competition is between the individuals, institutions and organisations who collectively modify the opportunity to exercise choice by imposing constraints on time. Underlying this is a power relationship whereby the resource available to the individual student is rarely equal, particularly in relation to income as the following comments illustrate.

"Recently, I have had major problems at work. I have had my salary reduced by 50% but with no change of the working hours. I have handed my notice in and started a company, all in the space of 2 weeks. Stressful or what! Things are settling down and I think should have more time for my studies now I am working part-time for myself."

Male student, age 44.5, working in UK. Post-IMC: Unforeseen Events

"I'm having two jobs. Some days I couldn't get to bed until 01h00, so I have very little study time. I would like to have more time, unfortunately, I need more money for paying my mortgage."

Male student, age 32.2, working in UK. Post-Law: Work Comment

The result is that students with time to spare hold a better bargaining position than those who do not, and thus are better able to exercise the client control that Smith (2003) refers to. The stage 4 findings show that over the duration of the longitudinal study the hours remained constant for half the sample but increased significantly for around a third placing greater pressure on study time. This can largely be attributed to the recession within the property and construction sector, as the following comments illustrate.

"The adverse market is making work alongside the course quite difficult, in that morale at work is poor, so it is a struggle to remain positive at home. My partner also finds that she is struggling with my time commitment to her as opposed to the course."

Male student, age 30.2, working in UK. Post-Practice: Home /Domestic Comment

"My hours of work haven't increased but my work load has increased markedly over the past 6 months. I'm essentially doing the job of an experienced surveyor running four sites myself due to redundancies etc. I guess on an assistants salary it makes business sense to do so, however, it feels like I don't stop all day and so am de-motivated to start studying again when getting home."

Male student, age 28.3, working in UK. Post-Practice: Work Comment

Fear of redundancy and increased workloads understandably keep students at work for longer thus constraining the time available for study. Younger students in particular worked longer hours as did non-UK students. The fear of losing work is cited by Kodz et al. (2002) as a primary factor that prevents employees taking up flexible working arrangements. Surveys of employee attitudes by the Chartered Institute of Personnel and Development (2009) show that long working hours and high work intensity are most frequently cited as the top concerns. In this respect Brannen (2005) argues that individualism and work intensification increases the complexity of life as individuals are driven to achieve more at work, thus interfering with social activity and study opportunity. In contrast the following comment demonstrates that recession can have a beneficial opportunistic effect.

"After completing the law module, I have realised that I managed to perform all the learning activities and both assignments in a satisfactory time with less stress than previous modules. Little has changed in my social, or domestic life, however a slow up in the property sector has allowed me a little more time during the working day to progress with further reading and contributions on the VLE."

Male student, age 27.8, working in UK. Post-Law: Further Comment

The industrial society was marked by a clear demarcation between work and life (Thompson, 1967) but it is evident in late modern society that the concept of a permanent job with normal working hours no longer exists (Westenholz, 2006). Not all employers are the same and it is clear within the findings that private sector employees enjoy less flexible working arrangements than those in the public sector, restricting opportunity for alternative activities as the comment below makes plain.

"A sharp increase in employment workload. A placement move from the public sector to the private sector increased working hours by 3 - 4 hours a day, with time at work being more pressured."

Female student, age 24.5, working in UK. Post-IMC: Unforeseen Events

The greater flexibility of the public sector increases the opportunity for study and enables more time to be released than would be possible within the private sector. Effectively this offers benefits similar to part-time employees although it is striking that the actual daily hours worked by part-time employees increased as the number of days reduced, so may not be a real advantage. In contrast it is clear that self-employed students enjoy the benefit of managing their own time but must choose between using time for study or for income generation. This has become more evident with the exchange of money for services becoming the norm and more people having portfolio careers based on self-employment or part-time contracts. The findings indicate that these students prioritise time and are more averse to directing time to non-productive domestic, social and leisure activities. Huffington et al. (2004, p134) describe this as symptomatic of an age of anxiety which Giddens (1999) and O'Neill (2002) variously describe as survival within a risk society. The result is that their study opportunity is more highly constrained making less time available. This brings into question whether we work to live, or live to work. Until the 1980s little thought was given to work-life balance and varying the structure of working hours to accommodate 'childcare responsibility, care for the elderly or infirm, participation in community activity, avoidance of long commutes, time off in lieu of long working

hours and part-time work for older employees' (Kodz et al., 2002). The evidence from the findings is that most students enjoy a certain degree of flexibility, and this can be considered as the result of advances in wealth and technology (Gershuny, 2000, p46). Either these make work more effective so individuals work less and release time for a range of leisure activities but with less money; or individuals work longer hours and have less time for leisure but earn more money to spend on activities they enjoy. Within these findings it can be interpreted that students working part-time in particular tread a middle path between these extremes resulting in what Linder (1970) called the harried leisure class.

Travel

In figure 16 no specific relationship between travel and study time was seen, however, there was a trend for time on the VLE to increase as travel time reduced. The high travel time for the 10-14 hour VLE category was due to one student recording 24 hours against the remaining average of 7.4 hours. Similarly a single high value in the 26-30 hour study time category raised the average. The length of travel episodes indicated most students make journeys of less than 30 minutes but that there was a steady increase in travel across the students to a maximum of 4 hours. Commuting, defined as travel within the three hours up to 9am or after 5pm, only accounts for a little over half the travel episodes with more than a third taking place during the working day.

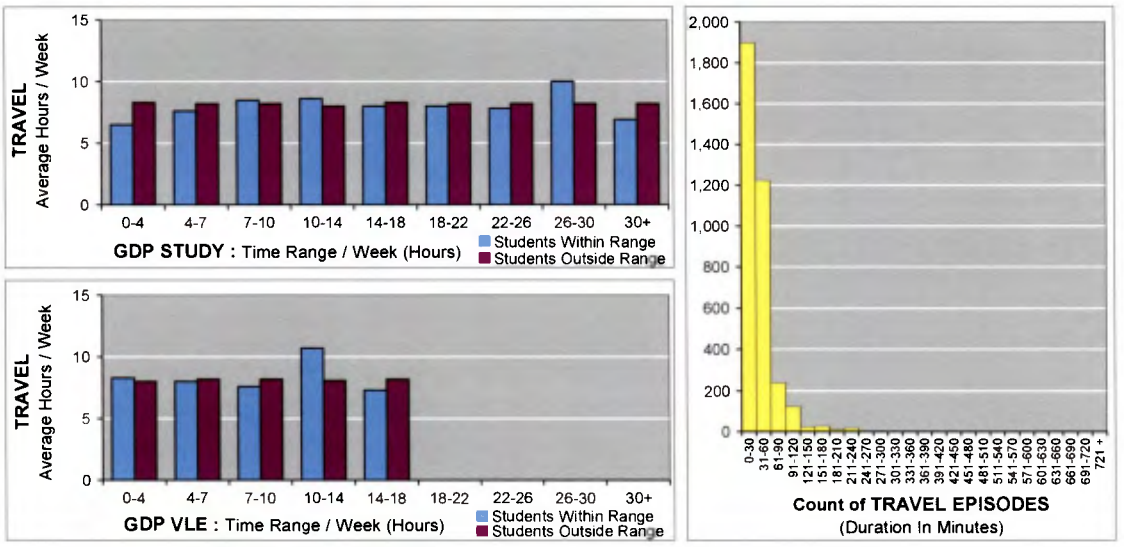


Figure 16: Variation in Travel / Study / VLE times and Episodes of Travel activity

The pre-course findings indicate that younger students spent longer travelling than older ones, as did students located outside the UK. Generally non-UK expatriate students working in the UK spent more time travelling than UK expatriates. A strong career motivation appeared to account for students to travel for longer than other motivations. Travel reduced for those with more qualifications and greater experience. Travel was also longer for students with more dependent children, and for those with poorer study skills. There was evidence that the number of, and time spent in, domestic activities increased as travel time increased. Students with no

previous experience of distance education travelled for longer, although with no logical explanation this is likely to be coincidence. The time spent travelling reduced for part-time and contract employees, however, there was evidence that students working less than 15 hours per week travelled for longer. Similarly students who worked away from home recorded longer travel times as the number of days increased. The use of mobile phones and MP3 players increased as travel time increased. Online time at home increased as travel increased but it could also be seen that computer usage at work reduced as travel reduced suggesting a compensation effect.

The post-module findings suggest that as travel time increased so students indicated a greater need for study time and cited more pressures on their time. This was reinforced by students with longer travel times recording poorer time management and reducing ability to define regular periods of time for study. The time lost to travel was clearly an issue as the number of suggested changes to the course increased with the length of travel. Despite this the length of time taken to prepare the assignments increased with longer travel times suggesting this time was not entirely wasted, however, this may reflect the greater effort needed.

For professional employees, such as these, the added burden of working extended hours in a 'world of speed' (Arthur, 2004) can be more acute, and this is reinforced by Barnett and Coate (2005, p167) who portray professional life as 'congested with tasks and demonstrations of effective performance'. A prime example for College students is travel which goes beyond daily commuting to business visits during the working day. The stage 4 survey showed that the travel demands for the majority of students did not vary with three quarters recording no change. In the case of those students who work away from home, the duration of their travel is longer but the findings indicate that their free time outside work and travel is generally freed up enabling greater opportunity for study. The fact that more than a third of journeys occur during the working day was unexpected. Although most journeys last less than one hour students considered this to be 'dead' time offering little opportunity for study. Consequently travelling is a significant constraint on study but it can also be considered an opportunity. The following comments make a strong plea for audio study materials that enable study on the move.

"Due to the nature of my work, there is so much travelling involved, sometimes around 2000 miles a week, and on average around 1000, this takes away so much available time for study which I am struggling to cope with."

Male student, age 24.1, working in UK. Post-IMC: Unforeseen Events

"Travel time (when driving/walking) is ineffective use of time. More use of audio methods of learning would be advantageous."

Male student, age 35.4, working in UK. Post-IMC: What Changes Can The College Make?

There is evidence that younger students commute the furthest for their work, and are potentially most disadvantaged. This is likely to be due to the affordability of property or the location of the parental home. Given their relative inexperience this suggests younger students have taken a job for career development and are prepared to travel, whereas the shorter travel evident for students more established in their careers suggests they have either found local employment or have relocated. Older students therefore potentially benefit from increased study

opportunity as their dead time is less. It is clear that reducing the proportion of the day devoted to work and travel would free up time for self-development, however, as Kember (1999) notes, sacrificing work time can reduce promotion chances thereby creating a conflict of interest for the aspiring professional.

NON-WORK RELATED ACTIVITIES

These cover the diary findings in respect of domestic, leisure, social and resting.

Domestic

Generally no clear relationship between the time given to study and the amount of domestic activity was evident in figure 17, with domestic time remaining fairly consistent as was the time allocated to the VLE. The high average for the 14-18 VLE group was due to a single high value within a group of two. The majority of domestic episodes were of up to 60 minutes in duration.

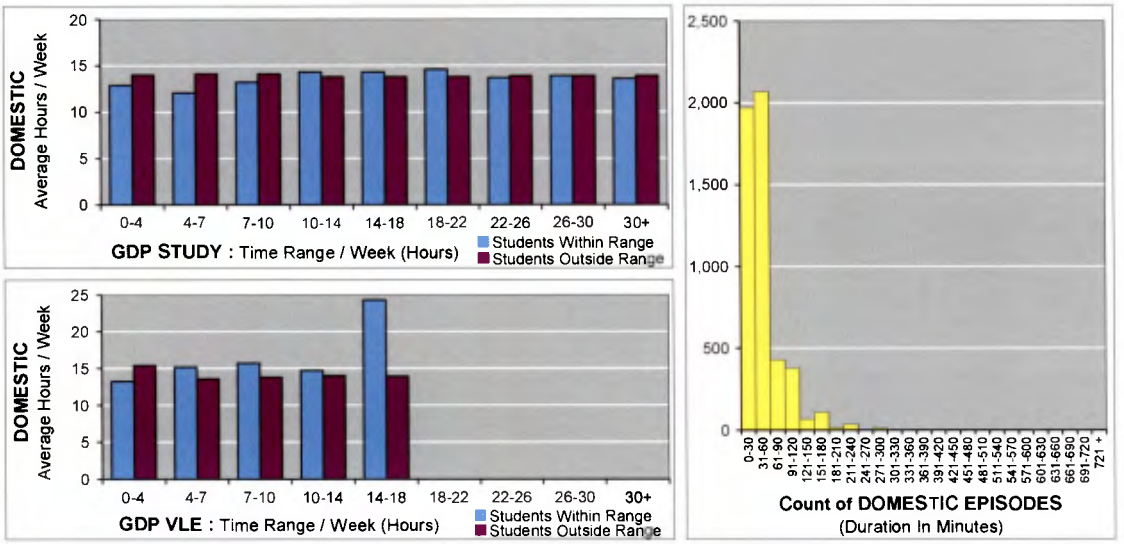


Figure 17: Variation in Domestic / Study / VLE times and Episodes of Domestic activity

The pre-course results indicate that time spent in domestic activity was 22% higher for females than males. It increased linearly with age with the 47+ age group giving almost double the time of the 18-25 age group. Domestic time increased for non-UK students and for all expatriates wherever located. Students with better English took more time for domestic activity. Domestic time increased as domestic independence varied with those living at home with parents indicating least time and those occupying houses the most. There was evidence of an increase in domestic time as the number of adults in the household increased, although this was not evident for those with dependent children. The amount of time devoted to domestic activity reduced as the pace of a student's social life increased. Domestic time increased for students returning to study after longer breaks in education and for those who already had experience of distance study. Those studying at work indicated less time for domestic activity, however, this

increased for those having to share a computer at home. Generally students from the public sector had more time for domestic activity whereas this reduced for those who were self-employed. Students with longer work experience indicated higher times for domestic tasks, and a similar increase was seen as travel time increased. The amount of time on domestic activity reduced as the time given to mobile phone use, texting and MP3 use increased. In contrast Internet access increased as domestic time increased suggesting an age factor.

Students indicating poorer learning in the post-module responses also indicated reduced time on domestic activity. There was evidence that the time allocated for the learning activities was perceived to be too short by those with a higher domestic time commitment. It was also evident that students recorded longer periods of continuous study with higher domestic time. Students who indicated more frequent study breaks and of longer durations also indicated lower domestic times.

Diamond (2004) describes the increasing trend for women in the workforce as shown by a 30% increase in female employment between 1971 and 2000. This Labour Force statistic (quoted in Kodz et al., 2002) is reflected in the third of female students in this research, however, only in respect of domestic activity is there a noticeable gender difference. The conjugal pact that Roussel (1991, cited in Landwerlin, 2006, p170) describes is a model of parenthood where women are no longer expected to dedicate all their time to family and can pursue a career while fathers take greater responsibility for child care. There is only weak evidence for this within the findings that show that female students recorded significantly higher domestic times than their male counterparts; and females with children recorded almost double the time of those without dependent children. Although not at the same level, a similar variation was found between males with children and those without. This appears to confirm Evans (1994, p58) who observes that men generally find it easier to opt out of parenting responsibilities, although Huffington et al. (2004, p50) highlight that family life is no longer static over the period of children growing up. Even so the longitudinal results indicate essentially no change in domestic time for most students with just a quarter indicating a small increase. Goodin et al. (2008, p202) observe that roles continue to be defined by earnings with a more egalitarian division of responsibilities in dual income households compared to those with single breadwinners. They suggest this is not necessarily evenly distributed and this is evident within the findings as women do a disproportionate share of domestic activities, potentially influencing their time for study. Clearly the presence of children in the household affects the time allocation of parents, especially mothers who choose to stop work or work part-time when they have young children. The diaries show that mothers worked less hours than women without children, however, intriguingly full-time working mothers recorded almost 10 hours more domestic time than part-time ones suggesting a possible compensation effect. Balancing work and study alongside other responsibilities, particularly family ones, is problematic for distance students and it is not unusual for students to jettison their studies temporarily, or to compromise the time spent on their other responsibilities. The ability to compromise requires a supportive family that copes with strains by adapting its routines to take on additional responsibilities, and Goodin et

al. (2008, p268) observe that the timing and harmonising between partners of free time is as important as the amount of free time. The family unit is, therefore, critical to the supply of study opportunity and can work both for and against as the following comments illustrate.

"I have been fortunate in that my family is flexible and understands the time pressure of the course."
Male student, age 35.4, working in UK. Post-Technology: Home/Domestic Comment

"I have noticed the importance of family and partner support and how it is effecting them. I know they are supporting my move to do this course, however there is a contradiction in their behaviour when they complain that I do not spend any time with them. I do not feel I have perfected the art of managing the time I have yet, but I will keep on trying."
Female student, age 23.9, working in UK. Post-Technology: Further Comment

The need to maintain the family unit can be regarded as the reason that students with families appear prepared to travel furthest, presumably for a better income or due to the lack of affordable family accommodation close to the workplace. This constrains study as does domestic chores, however, the findings indicate that study tended to increase with greater domesticity. It was apparent that domesticity places a clear divide between the young, unattached student and the older student with dependents. The findings show that domestic time increases with age, but that this is linked to domestic circumstances. Younger students living at home with parents averaged less domestic time than those living with spouses or partners. Despite this apparent increase in opportunity for study, the results show that younger students preferred to substitute domestic time with other activities such as longer travel, longer work and particularly more social activity. In contrast older students took more leisure time which may be linked to their greater domesticity or as a direct substitute for social activity. Potentially the presence of a family, and large family circle, constrains opportunity for study due to the social pressure to share time. Very few indicated they lived with dependent adults and only 72 students declared themselves as part of a family with children. This proportion is similar to the findings of La Valle et al. (2002) that showed that a fifth of families with children under 15 included a parent who was studying. They concluded that distance learning overcame difficulties faced by adults combining study with family life such as childcare and 'shift' parenting by offering flexibility and choice in what and when study is undertaken. The same can be concluded here, but even so problems of accommodation, health and family reliance were experienced that impacted negatively on study as the following comments illustrate.

"Illness, moving home, family commitments and family problems have all influenced the effective time that I have been able to allocate to studying."
Female student, age 48.6, working in UK. Post-Law: Home /Domestic Comment

"I have a difficult teenager who is currently having problems involving the school and the police."
Female student, age 37.4, working in UK. Post-Technology: Home/Domestic Comment

"Hay fever is a killer at the moment. It's really affect my ability to work"
Male student, age 32.2, working in UK. Post-Technology: Unforeseen Events

"Uncomfortable working environment - I have only just saved up enough to buy a desk, I had my computer on the floor for most of the module."
Female student, age 22.6, working in UK. Post-IMC: Other Reason To Break Study

Inevitably sacrifices have to come from both sides, but if family duty is perceived as taking priority over study time it can be difficult to integrate periods of study within the family. An equilibrium position has to be found which allows study to progress but which also allows for the maintenance of family relationships. There is an imperative to prioritise time which is likely to affect the amount available for study although in respect of domestic time the findings show that it is likely to be the woman who has less temporal autonomy than the man.

Leisure

A general trend for increased study time as leisure reduced could be seen in figure 18. This trend was more pronounced for time on the VLE. Most leisure episodes were of up to one hour in duration but with a significant number lasting up to 3 hours.

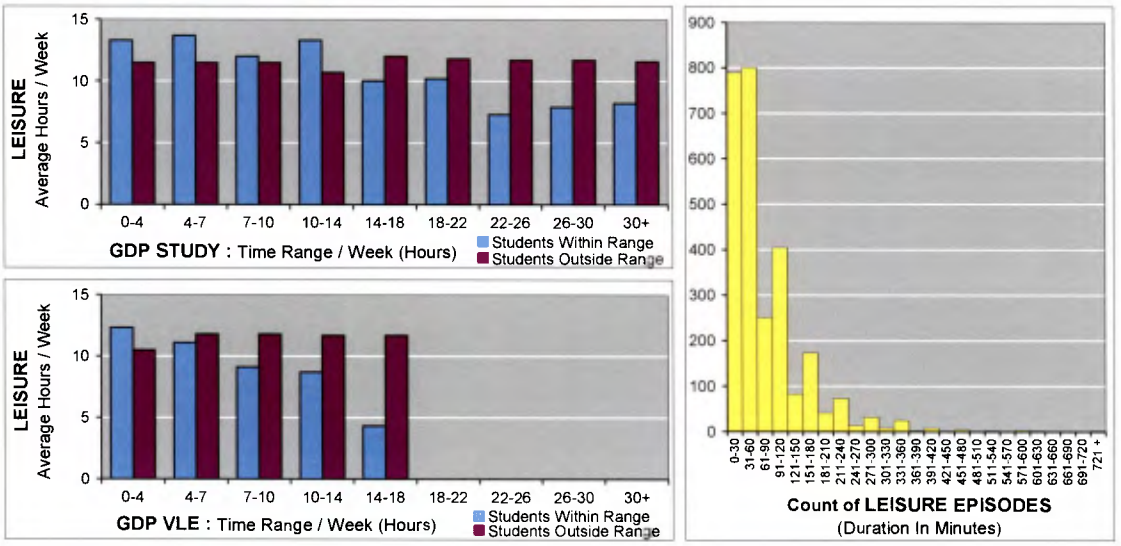


Figure 18: Variation in Leisure / Study / VLE times and Episodes of Leisure activity

The pre-course analysis suggests the amount of time devoted to leisure increased for males and older students. Higher leisure time was taken by students in the UK and by expatriate British. Leisure time was less for those with better study skills and reduced with poorer standards of English. Students whose motivation was simply to extend knowledge took more leisure time, as did students with physical disability and those with prior experience of distance study. A trend for increased leisure time as the size of family circle increased could be seen. Leisure time increased for those students living with a partner. It also increased with an increase in the number of domestic activities undertaken. Leisure time was less for self-employed students and more for those who worked less than five days per week. Those on short term contracts exhibited less leisure time than students on longer or full-time contracts. Students in the public sector had more time for leisure than those in the private sector, as did students who could work more flexibly or worked less overtime. Those who could study in a separate office at work recorded increased leisure time and the amount of leisure time increased as computer access at home or work increased. Leisure also reduced for students as their time online

increased. Leisure was greater for students with no mobile phone and reduced as the number of text messages sent and received increased. A slight trend for increased leisure with MP3 use could be seen.

From the post-module findings it appears leisure time was higher for students who recognised more weekly study time was required and increased as the number of time pressures increased. Students better able to manage their time indicated reduced leisure time, which also reduced as regular weekly study hours increased. Higher allocation of time to leisure resulted in increased failure to complete activities, reduced learning and less time for assignments. Strangely, assignment marks generally increased as leisure time increased. Rather than an aberration in the results this reflects the confidence that students demonstrated in their study abilities as those who made less frequent reference to the study skills resource scored higher in the assessment. At the same time those making minimal use of the resource averaged the higher leisure times. Students who took longer breaks in study and cited more reasons for breaks, however, recorded reduced leisure time although this increased for students indicating a preference for morning study.

Leisure is described by Evans (1994, p97) as the re-creation of 'ones physical, psychological and intellectual self'. This tends to follow the Fordist assumption that people segment their daily lives so that what is left after paid work, domestic work and parenting is leisure, with more time at weekends than during the week. This is supported in the findings that show that students are more constrained during the working week although more time is given to leisure than social activity. The longitudinal study showed that a third of students made no change, with a third reducing their leisure and a further third increasing it. This may be due to habit but may also be due to peer or family pressures. Clearly substituting social and leisure for study is a natural preference requiring a strong will to resist. Some events can be considered to be non-negotiable; in particular a higher frequency of marriage preparation can be expected for young professionals compared with older student groups, however, the findings show that the time involved in making arrangements was clearly underestimated and constrained study opportunity as the following comment exposes.

> "Organising the wedding was a nightmare alongside study and now it's over I'm finding it much easier to find time to study and relax too whereas before I was studying and then having to organise the wedding late at night which was making me very tired and having an effect on my paid work too which was not good."
>
> Female student, age 27, working in UK. Post-Practice: Home /Domestic Comment

Social

A trend for reduced study as the time given to social activity increased was evident in figure 19. In contrast the time spent on the VLE was not substantially affected by social time. The high average for the 14-18 VLE group was due to a single high value within a group of two. The majority of social episodes were of less than one hour but ranged up to 6 hours in duration.

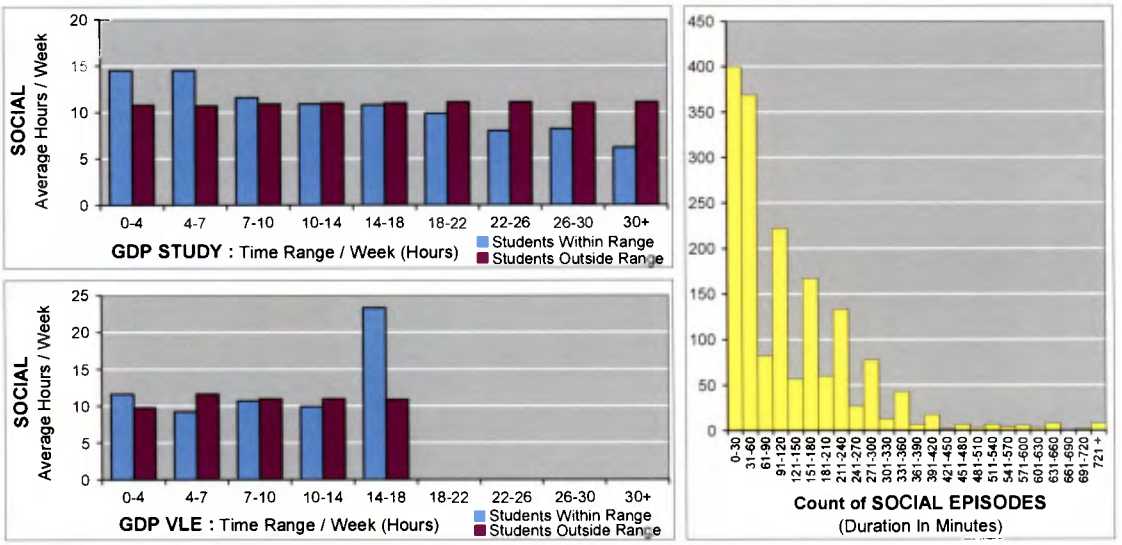


Figure 19: Variation in Social / Study / VLE times and Episodes of Social activity

The pre-course results indicate social time reduced with increasing age with the 18-25 age groups, particularly those living with parents, indicating the highest social time. Students with physical disability recorded low social times. Social time reduced as the length of break in education or study skills increased but increased where students had previous experience of distance study. Students with dependent children recorded high social times and those with children aged 4-12 recorded higher times than those with toddlers or teenagers. Compared to UK students, social time increased for expatriate British but reduced for non-UK students working as expatriates. Considerably more social time was taken by non-UK students working in their own country; and by students with poorer English ability. Of no surprise, social time increased as the size of the student's social circle and number of social activities increased. The time given to domestic activity reduced as social time increased. Social time was highest for students working 4-5 days per week but less for those working 6-7 days or 1-3 days, suggesting socialising within the workplace. A reduction in social time was evident for students who were self-employed and for those who spent more days working away from home. Students with longer experience and further to travel also indicated less social time. Increasing social time was seen for students who were given more time off for study as well as those taking longer meal breaks. Social time was higher for students who had their own computer at home or at work but reduced as their participation in online activity or social networking sites increased. Social time also increased as the time spent using mobile phones and MP3 players, and texting, increased. An increase in social time was evident for those students whose background subject knowledge was less.

The post-module results indicate that the time management of students improved as the time devoted to social activity reduced. Students with a preference for evening study and shorter length of breaks in study recorded less social time. Generally students indicating high social times failed to complete learning activities in full and considered them to be too long. Students with very high social times indicated no participation in the online forums. The number of time

pressures cited by students increased as the social time increased. Generally poorer assignment marks were achieved as social time increased.

Social and leisure time may be considered to be the same as each relate to non-work activity, however, the differentiation adopted here is that social time is the proportion that focuses on, and is spent with, other people (Partridge, 2005). According to Chatzitheochari and Arber (2009) the boundaries of work and social life have shifted over the last 20 years and it is evident that students preferred to use their free time, such as during lunch breaks during the working day, for socialising and networking rather than for study. This is perhaps an inevitable consequence of patterns of activity that are structured in accordance with 'cycles of social time' (Burt, 2003) and seems especially the case with younger students. Adam (1995, p103) points to the flexibilisation of working time as contributing to an erosion of communal activity. In this respect students stating a preference for evening study and shorter breaks in study recorded less social time, however, this may be to the detriment of their relationship with others and prove financially costly to resolve as the following comment indicates.

"It's boring for my partner and I've had to get a cleaner."
Female student, age 34.6, working in UK. Post-Law: Protected Time Problems

A healthy social and leisure life is a lifestyle choice but is clearly important for young professionals. Although the general assumption is that social and leisure are activities that can be compressed to create study opportunity, the stage 4 findings show that less than half the students made a net reduction in their social time and a third increased this. This may be explained by the fact that the social circle of distance students remains intact as study comes to them rather than the reverse as experienced in conventional higher education. Kember (1999) notes that the influence of friends is usually less marked than that of work and family as social arrangements are less binding than family ties or employment obligations. Even so the findings tend to support Kember et al. (2005) that sacrificing social life was a means of finding time for study as this comment illustrates.

"With a boyfriend around in a small flat, it's sometimes difficult, so time to time I stay in the office to do studying ."
Female student, age 28.7, working in UK. Post-Law: Personal Comment

Resting

No direct relationship existed between the amount of rest taken and the time allocated to study or the VLE in figure 20. The majority of students recorded rest episodes of 6-8 hours accounting for night sleep but a significant number also recorded episodes of between 30 minutes and 2 hours during the day.

The indications from the pre-course findings is that the amount of time taken for rest reduced with age and disability. It also reduced as the length of work experience and/or break in

education increased which was likely to be linked to age. Rest generally increased for non-UK students although this reduced for non-UK students working in the UK or in another country.

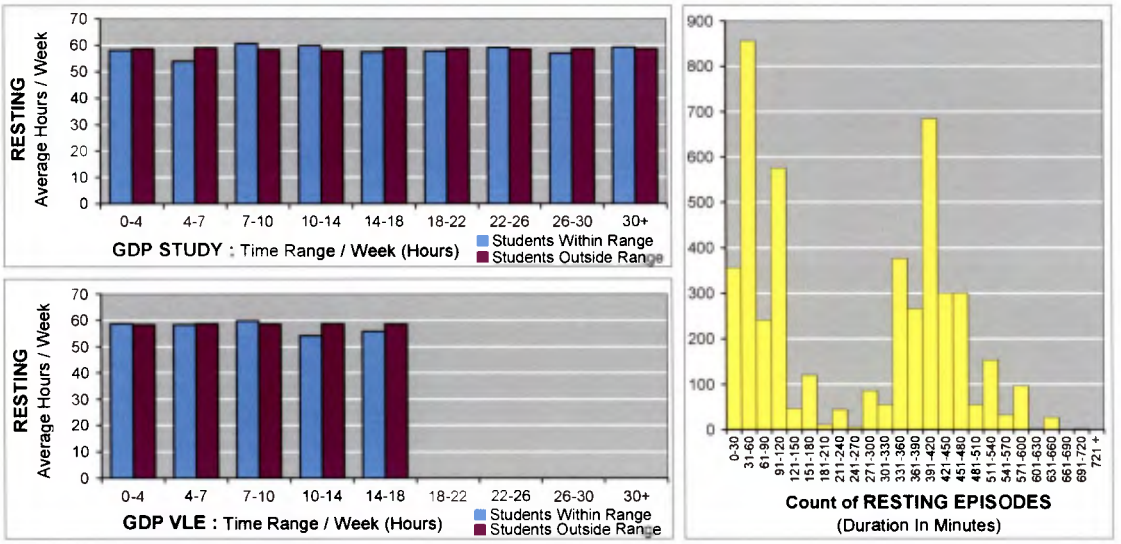


Figure 20: Variation in Resting / Study / VLE times and Episodes of Resting activity

A weak trend for rest to increase with the number of adults in the household was evident. A more distinct increase in rest was visible as the pace of social life and number of social activities increased. The amount of rest taken reduced as the number of days worked increased. Students who had no access to a computer at work or home took more rest and this also increased for those who had minimal requirement to use a computer at work. There was indication that rest reduced as the time spent online at home increased. A similar trend could be seen for mobile phone usage although rest appeared to increase as the number of text messages increased.

The post-module results indicate the amount of rest generally increased for students indicating better time management skills. It also increased for those who only took shorter and more frequent breaks in study. Students who achieved lower assignment marks tended to take more rest.

Sleep is a biologically necessary daily activity that social scientists have tended to assume is largely unaffected by social context, however, research has shown that its duration is strongly correlated with fatigue, and with health and safety (Chatzitheochari and Arber, 2009). This makes it particularly relevant to adult students in employment as, if reduced sleep affects performance and productivity, it potentially also affects their studies through impaired health, knowledge and experience (Kooreman and Wunderink, 1997, p124). Generally the amount of rest reduced with increasing age indicating improved opportunity for older students. However, the findings show that longer periods of rest were taken by younger students, mainly those preferring a fast paced social life with late nights at weekends. The findings show that it is these less domesticated and more gregarious students that register the poorer learning experience. The indication from the longitudinal study is that students adjusted their rest time downward by up to an hour depending on age and domestic situation, broadly in line with the reducing trend

identified by Arthur (2004) over the ten years to 2003. Such sleep loss may reflect a cultural imperative for wakefulness or be considered the ultimate form of leisure, however, it may more generally be regarded as a reserve on which individuals can draw for extending study opportunity. The findings tend to reinforce this, however, as the following comments observe it can be more essential as recovery time.

"Would be late , usually after work and when baby is in bed, so at my most fatigued!"

Male student, age 29.4, working in UK. Post-Law: Protected Time Problems

"Unless it is very late in the evening or very early in the morning, protected time is not possible. Also, having a full time job and a very young family means resting time is at a premium, so any quiet time is spent on me and not my studies."

Male student, age 39.7, working in UK. Post-Law: Protected Time Problems

"Due to the repetition of the weekly routine, stress of work, etc, I found it necessary to devote more time to relaxing and sorting out the domestic side of life."

Male student, age 28, working in UK. Post-Law: Protected Time Problems

TECHNOLOGY RELATED ACTIVITIES

These cover the diary findings in respect of Internet and GDP VLE.

Internet

No strict relationship was evident in figure 21 for time spent in study or time using the Internet. By far the greater number of Internet episodes were of 30 minutes or less, by a factor of four.

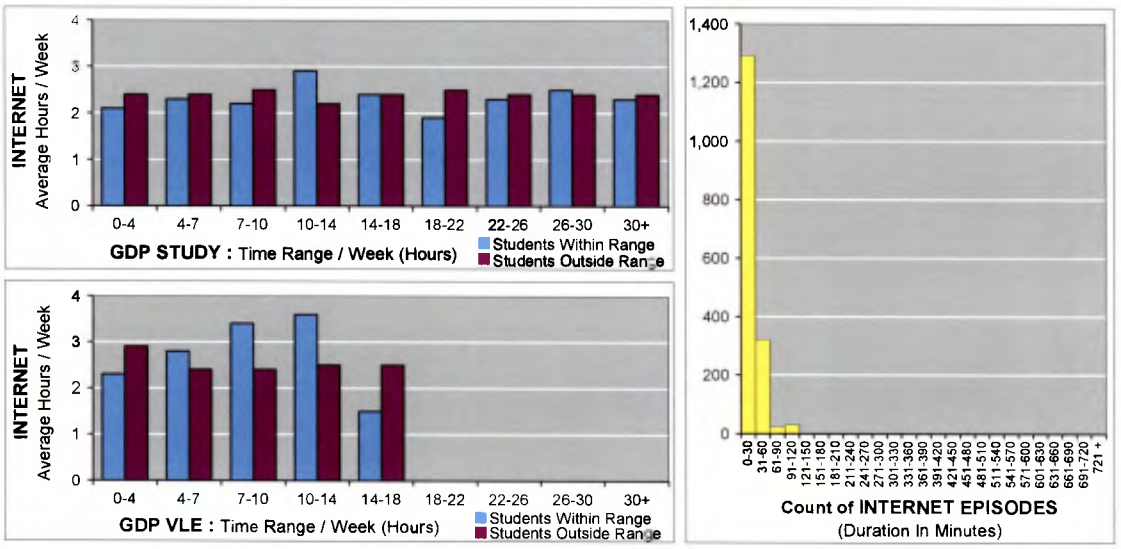


Figure 21: Variation in Internet / Study / VLE times and Episodes of Internet activity

The pre-course responses show that Internet use was greatest for male students and students below the age of 30. It was also greater for expatriate students and for those retaking modules. It did reduce for those with previous distance study experience and those with poorer study skills. It was noticeable that students living alone or in a hostel made greater use of the

Internet. Use also increased as the number of adults sharing accommodation increased and more particularly as the size of family circle increased. Internet use tended to reduce as the pace of social life increased. Internet use was seen to reduce with fuller employment and increasing numbers of days worked. It increased as both length of employment and experience increased, and with increased work flexibility and overtime. Career development as motivation to study did result in increased Internet use. Students with access to a computer only at home made greater use of the Internet particularly if this was not shared. In contrast use reduced if access was only available at work, and as the percentage of time using computers at work increased. A broad trend for reduced Internet use as MP3 use increased was seen. Internet use increased as the number of social networking sites visited increased.

The reduced Internet time found in the post-module results mirrored a reduction in the time devoted to the course VLE and participation in the online forums. At the same time increased use of the Internet resulted in failure by many students to complete the learning activities. Students who made greater use of the Internet indicated that they required more study time, and made less use of the study skills resource. Those who indicated longer periods of continuous study made less use of the Internet and students who made less use of the Internet indicated reduced learning from the module. The preferred time for study by higher Internet users was during the lunch period, midday – 2pm, and in the evening 6-9pm. It was particularly noticeable that those students who made greater use of the Internet declared their diaries to be less accurate.

Although the speed of computers has been proclaimed as a radical turning point as 'never before has time been organised at a speed beyond the realm of consciousness' (Adam,1990, p140) relatively little is known about how technology fits into a distance student's daily life. Allan (2004) observes that e-learning can bring an additional burden to an already heavily pressurised workload and life style and cautions that it can be an obstacle for learners leading busy professional lives. It is evident from the findings that the majority of students are technologically literate as indicated by less than 3% of respondents to the pre-course questionnaire having no access to a computer or required to use a computer for work. These are the exceptions as are the 8% who spend less than one hour per week online. Consequently students' use of computers at work and home can be anticipated to influence their approach to study. In particular there are indications that use of mobile phones, including texting, and mobile devices are linked to social activity and divert time away from study. In this respect Partridge (2005) highlights the dichotomy of views about whether use of technology improves or worsens people's social life. On the positive side she cites the efficiency hypothesis, (Robinson et al., 2000), that using the Internet to carry out mundane tasks frees up time for social activity. Against this the time displacement hypothesis, (Nie et al., 2002), says that time spent using the Internet is time not spent in more social activities. From the limited evidence collected it is not possible to establish whether students' technology use followed either of these, however, the following comment suggests displacement may apply in some cases.

"All my life is done online!"

Female student, age 35.6, working in UK. Pre-Course: Other Online

Lesnard (2005) finds that the displacement theory for technology to replace other activity is only valid if this is used to do completely new activity without reference to the rest of daily life. Although there are new activities as a result of the Internet most activities may in fact be new ways of doing old things such as online banking and shopping as cited by these students so it may not have such a profound effect on their time. The student quoted above contrasts with the large number of students who recorded no Internet time at all. For those that did record time there was generally very little change in Internet use during the longitudinal study, with around a quarter of students reducing their time and a handful increasing it. This tends to confirm that the Internet serves a purpose and is used as and when required. Although not exclusively the case, the findings show that males take more leisure time and there is indication that time on the Internet does substitute for conventional leisure activities, particularly for students working full-time. Internet use is greater for the under 30s, especially those living alone, and there is evidence that it is used for socialising and maintaining contact with friends and family. In particular there is a high use of Facebook by younger students; which reduces with age. Age also influences use of the VLE which reduced for older students, however, this was not an exclusive trend as it also reduced for younger students indicating a faster pace of social life. It is noticeable that the social time recorded by parents of primary school age children was significantly higher than for other parents. In this respect Bittman and Wajcman (2000) distinguish between family leisure that is 'contaminated' by the presence of children and adult leisure when such distractions or constraints are absent. As example the need to share a family computer often means parents having to wait until children are in bed before study and participation in online activities can commence, as the following comment confirms.

"I participated mostly ... when I could. I don't always get access to the PC when I want. I am competing against 3 kids and a wife."

Male student, age 44.5, working in UK. Post-IMC: Reason For Non-Participation

GDP VLE

Overall the time spent on the VLE increased as study time increased in figure 22. The VLE time recorded by students outside the study categories was consistent at around 3 hours per week. The duration of VLE time episodes were generally of up to one hour with the most common by a factor of four being 30 minutes or less. For consistency the chart for GDP VLE is included indicating a perfect correlation for VLE time.

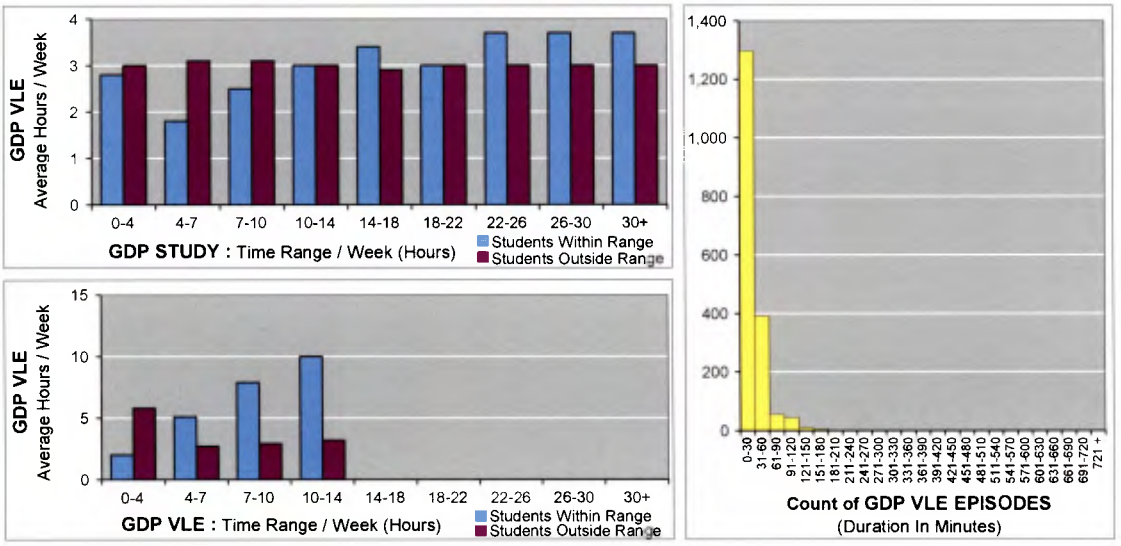


Figure 22: Variation in GDP VLE / Study / VLE times and Episodes of GDP VLE activity

The pre-course analysis indicates that time spent on the VLE tended to reduce marginally as age increased. Expatriate students made greater use of the VLE than UK students although the least time was recorded by non-UK students working in their home country. Greater use of the VLE was made by students with poorer English language. Students with previous experience of distance study made less use of the VLE as did students indicating they had some form of physical disability. Career motivation gave incentive for using the VLE, however, students with poorer study skills made less use of it. VLE time increased as the length of break in education increased. Students living in bedsits made greater use of the VLE as did those with two or more dependent children. Use of the VLE, however, reduced as social activity, the size of family circle and number of domestic activities increased. VLE time increased for students working less than 35 hours per week, and for those given more time off for study. Self employed students recorded the least time. Students with access to the Internet only at home, and those with only limited access at work, recorded higher levels of VLE use. VLE time increased as the number of social networking sites increased but reduced with increased use of MP3 players.

An increase in VLE time was recorded in the post-module responses by students who indicated they were better able to manage their time, or could find more regular periods of time for study. VLE time increased for students who did not attend the face to face for cost or time reasons. It also increased as use of the study skills resource increased. Time on the VLE reduced as students took longer breaks from study. Students recording lower VLE times were more likely to not complete the learning activities and indicate that the time for these was too short. Paradoxically the 2 students who saw little value in participating in online activities recorded the highest VLE times. Generally online participation increased as VLE time increased. Overall students indicated increased learning as VLE time increased and this was reflected in better assignment marks.

Students who completed the foundation module were familiar with the VLE so it was surprising that two thirds made minimal use of it. Clearly for some students entering the course at Part 1 without this earlier experience it was a matter of lack of familiarity with how VLEs work, however, it may be assumed that many students exercised choice in when and how they participated as the learning activity results suggest. There is evidence that VLE and Internet use reduces with age lending some credence to to existence of the digital native, however, the findings do show that use of technology is not the exclusive domain of the younger student. For students new to a subject the acquisition of knowledge and understanding is a key determinant in their demand for study and this was seen to impact on VLE use. The following comments demonstrate that students prioritise and give preference to the more cost effective learning activities.

"Time constraints - no time to access during working day and time spent reading/studying in the evenings"
Male student, age 24.3, working in UK. Post-IMC: Reason For Non-Participation

"I am a relatively slow reader and probably I'm not the only one. Having to read hundreds of pages during a week, then browse the internet, then read others' contributions takes up a lot of time and hence I can hardly ever post my messages on time, as I spend the first half of the week if not the whole week to read the required material before I can post a message on VLE for that given week."
Female student, age 28.7, working in UK. Post-Technology: Course Comment

Comments such as these show that if VLE activity is not feasible or considered of high value then the time intended for this may be substituted by other activities considered as offering greater utility. It is clear that the less confident students did use the VLE to assist and guide their studies more than others.

STUDY RELATED ACTIVITIES

These cover the diary findings in respect of GDP Admin and GDP Study.

GDP Admin

Taken across all students study time increased as admin time increased, however, no trend was visible for VLE time in figure 23. These were only indicative as students attending the face-to-face sessions were instructed to record their time for this under the admin code. Consequently the following observations differentiate between those students who attended and those who did not. A similar issue exists for episode durations. Attendance at the face to face accounts for the longer admin durations, however, across the week the commonest episodes, by a factor of 4, were of 30 minutes or less so are unrelated to the face-to-face.

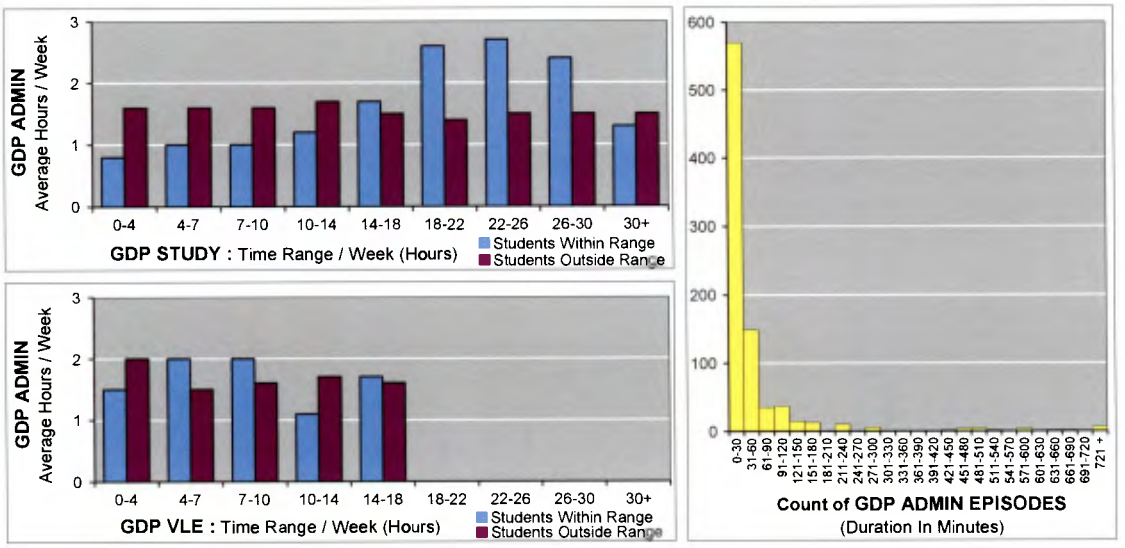


Figure 23: Variation in GDP Admin / Study / VLE times and Episodes of GDP Admin activity

The pre-course findings indicate that the time given to admin increased for students with dependent children and those indicating theorist as their preferred learning style. It reduced as online time at home, number of online activities, mobile phone and MP3 use, and texting increased. Of students who *did not attend* the face-to-face the amount of admin time increased for male students and older students. It was higher for non-UK and expatriate British students and increased as English language skills reduced. Students with learning difficulties tended to record higher admin time as did those living alone, although this reduced for those living at home with parents. Students with more qualifications and previous experience of distance study recorded more admin time, however, those indicating longer breaks in education recorded less hours. Students indicating non-stop social activity recorded much lower admin time whereas those with greater domestic activities recorded higher times. Admin time increased for students working in the private sector and for those without relevant employment but reduced for self employed students. Admin time increased as the length of work experience, days worked away from home and work flexibility increased. It also increased for students working more than five days per week. Students with no computer access at work recorded increased admin time, however, the time reduced for students with access to the Internet only at work. In the case of students who *did attend* the face-to-face admin increased as prior knowledge reduced. The amount of admin time increased for female students but reduced with increasing age. It was lower for non-UK students working as expatriates in the UK, and for those with experience of study from the foundation module. It increased for students indicating lower career motivation, and for those living with more adults. Admin time increased for students living in the parental home but reduced for those living with a partner. Students indicating non-stop and higher numbers of social activity recorded more admin time. Reflectors recorded the lowest admin time. The majority of students attending the face to face were in full-time employment. Admin time was higher for self employed students and increased as work experience reduced. Students working part-time or on short contracts indicated increased admin time, as did those with access to the Internet at work only.

The indications from the post-module analysis is that all students recorded higher assignment times, particularly for the second assignment, as admin time increased. The admin time of students who *did not attend* the face-to-face generally increased as regular weekly study times increased. Diary accuracy reduced as admin time increased. For students who *did attend* the face-to-face admin time increased as both the weekly study time and ability to manage time increased. It reduced as the number of time pressures increased. The amount of module learning reduced as admin time reduced.

At the general level admin time appears to reflect the depth of engagement of the student with their studies. This increased where students were finding their feet either with distance study or with specific subjects. It was noticeable that the characteristics and time decisions of students who did or did not attend the face-to-face were almost a mirror image of each other. The strongest motivator to attend was lack of background subject knowledge but this appears to have been tempered by flexibility in working arrangements or location. It can be presumed that the absence of these militated against attendance as the following comments suggest.

"Please arrange the Face-to-Face over the week days rather than weekend"
Male student, age 32.2, working in UK. Post-IMC: What Changes Can The College Make?
"Contact sessions in Dubai would be helpful"
Male student, age 26.8, working in Rest of World. Post-IMC: What Changes Can The College Make?

Given the student's reliance on weekend time for study it is clear from the findings that scheduling face-to-face on a Saturday disadvantages those who cannot attend due to reasons of cost, time, distance or location. Consequently a virtual solution appears more realistic for providing support without interfering with employment or study opportunity.

GDP Study

The average study time of students shown as outside the range in figure 24 indicates that this was consistently between 13-14 hours per week. Study time did not, however, vary significantly with the amount of VLE time. Episodes of study mostly ranged up to 3 hours in duration with 0-30 minutes being the commonest. For consistency the chart for GDP Study is included indicating a perfect correlation for study time.

The pre-course findings show a clear pattern of increasing study time with increasing age to be visible. UK students generally gave one hour more to study than non-UK students although non-UK students working in the UK studied for longer than other students. In contrast UK expatriates studied for much shorter periods of time. Students with disabilities studied for longer as did those with better English language and study skills. A trend for the length of study to reduce as the number of dependent children increased was seen. A similar trend was also visible as the size of family circle increased. Study time reduced as social time and the number of social networking sites visited increased.

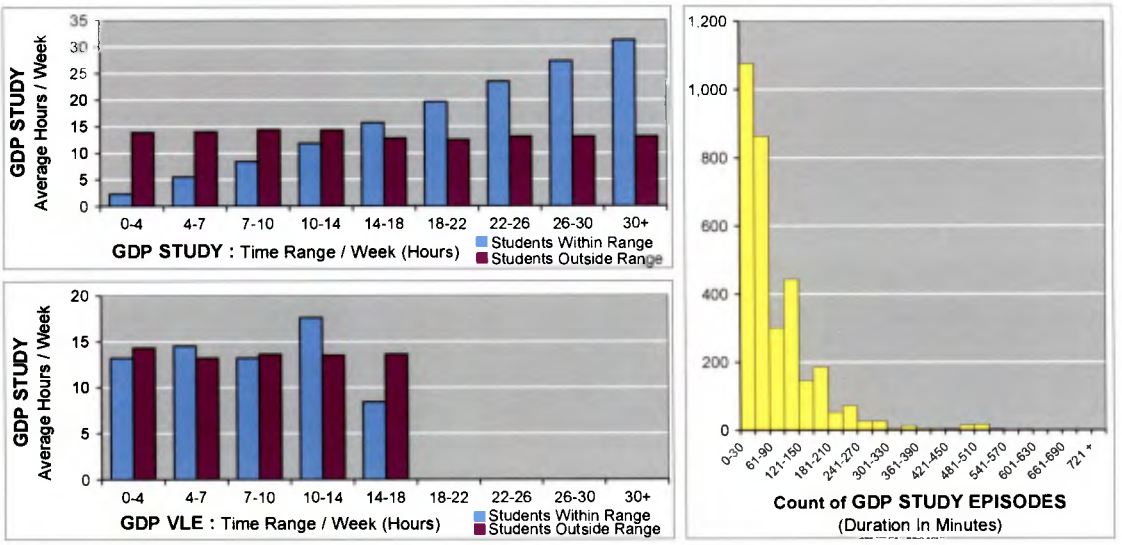


Figure 24: Variation in GDP Study / Study / VLE times and Episodes of GDP Study activity

The time given to study increased as the hours worked per week reduced. It also increased as the number of days working away from home increased. A tendency for study time to increase with longer employment could be seen. Students without access to a computer at work allocated more time to study. Study reduced as the amount of texting increased.

The post-module findings suggest that study time increased as students were able to set aside longer periods of regular time. It increased as students perceived more time was required for study, however, reduced as students increasingly struggled to manage their time. Surprisingly students who attended the Saturday face to face recorded more study time overall than those who did not travel to Reading. A trend for increased study time as the length of continuous study increased was seen. Generally students preferring to study in the early evening, 5-7pm recorded the highest study times. Study time reduced for students taking more frequent breaks in study but increased as students made greater use of the study skills resource. Online participation increased as study time increased but study times reduced with non-completion of activities. Students who recorded reduced study times indicated learning activities to be too long. A clear relationship for more learning with increased study was visible, and this was also reflected in the assignments. Students who gave more time to study gave more time to their assignments and achieved higher marks.

The evidence is that preference for study is strongly influenced by the student's individual characteristics. It is clear from the findings that, as Carroll (1963) identifies, prior knowledge impacts on the need for study. The indications are that the more rounded students with good English, more relevant qualifications and more extensive prior experience require less time. The following comments highlight the increased study needed for learning unfamiliar material, and the consequent impact of falling behind.

"Some consideration needs to be given to those who have no practical experience in subject. Study/learning time is at least double if this is a new area of learning for someone."

Male student, age 29.4, working in UK. Post-Practice: Further Changes

"Study I find academically difficult increases the time as I need to read the material twice or more slowly than I would normally do - my reading time normally doubles in these cases. In respect of background knowledge I wanted to make sure that I understand the context and the background for my answer. I believe this aspect added about 20% extra time vs. planned to spend on the assignment."

Female student, age 28.7, working in UK. Post-Law: Course Comment

"When you do get behind it can take you ages to catch up with all the postings on the VLE - if at all. This can be a bit daunting and I think some people give up. A feature where you can delete them without reading them - or mark them shown - would help."

Female student, age 37.4, working in UK. Post-Practice: Further Comment

These comments reinforce the need for physical and virtual materials to be accessible, beneficial and cost effective to use. The second comment draws attention to the need to appraise the readability of study materials, and to make additional time allowance for increased content difficulty. Reducing the workload increases the benefit to the student as less time is required. There is evidence within the findings that if this benefit is absent the less rounded students, who may be less confident, are more readily persuaded to switch their time to other less demanding alternatives, or to ones for which they have greater preference. Given the graduate entry criteria, the majority were anticipated to have good study skills, however, the greater use of the study skills support materials by many was not expected. The findings indicate that these students exhibited a higher degree of engagement and preference for study. As the following comments make clear students are pragmatic and will prioritise and adjust their demand for study as required.

"I tended to do these more quickly to make up time. I take more time on the reading in an attempt to take more in."

Male student, age 35.7, working in UK. Post-IMC: Web Research Activities

"I don't have much time for this activity. It is nice but my life is too busy to be chatting on VLE. I prioritise on the more educational discussions"

Male student, age 23.5, working in UK. Post-IMC: Ice-Breaker Activity

This backs the argument that professional students will give the time necessary but that they make positive decisions based around the value of the study itself. Although the indications from the post-IMC questionnaire are that the times for the learning activities were about right it is clear from the following comments that the demands of assessment were underestimated.

"The information supplied is very accurate and the organisation of the course is very efficient. However I find the actual content extremely overwhelming. The timetable requires almost one assignment per month, and each assignment is extremely comprehensive. I have doubts as to how long I can keep up with this workload!"

Female student, age 25.8, working in UK. Post-IMC: Further Comment

"The Activities take half as much time as predicted. The Assignments take twice as much time."

Female student, age 34.6, working in UK. Post-Technology: Course Comment

This stresses the limitations of rules of thumb if these are not accurate indicating that further research is needed, especially for assignments. Notwithstanding this, some caution must be exercised as the analysis clearly shows that it was the more time pressurised students recording reduced study or VLE time that indicated the learning activities to be too long. This

suggests that subconciously students recognise when they are out of equilibrium but blame the course rather than their other circumstances for their lack of time. Students have to compromise on their preferred hours with the result that individual pacing varies throughout the course period and is reflected in the following comment.

> "I found the real estate practice module really hard. This effected my study time enormously- I did loads of extra hours."
>
> Female student, age 34.6, working in UK. Post-Practice: Course Comment

It is not just the volume but the intensity of study that affects time for study. Generally the findings indicate that students remained motivated although the VLE access data show some falling behind. It is not clear if this was forced or voluntary but the lag was not of the 4 week order suggested by Lawless (1994, p59). Comments such as the following indicate that the structure of the activities assisted students in keeping to schedule.

> "The course is well laid out to help us avoid falling behind, given us a pace man to keep up with. It is a very good system and helps you stay on track."
>
> Male student, age 28, working in UK. Post-Practice: Course Comment
>
> "I think the on-line resources and the study material is excellent. The pace of the course is very challenging but this needs to suit the majority not the minority of students. "
>
> Female student, age 43.8, working in UK. Post-IMC: What Changes Can The College Make?
>
> "Workload and pace - it is a lot, can be managed although admittedly it is at the expense of other activities (e.g. social life)"
>
> Female student, age 28.7, working in UK. Post-Law: Personal Comment

Despite the last comment the findings indicate that the study satisfied the quality of instruction suggested as necessary by Carroll and Burt. Even so there will still be students such as the male offering the following comment who will adopt a coping strategy as their preference.

> "I don't continually study week in week out. I generally set aside 2 - 3 days prior to an assignment deadline and complete all activities which I believe are most beneficial to myself and the assignment. By this time, I believe posting comments on the forums would be of little use to other people."
>
> Male student, age 21.8, working in UK. Post-IMC: Reason For Non-Participation

Inevitably this strategy constrains study opportunity and is more evident in the findings for younger students. Such approaches help explain the extremes in time use identified in the previous chapter. The findings suggest that a student's maturity and degree of domesticity influence their acceptance of pacing. In this respect ignorance is bliss and it is noticeable that a higher social time is preferred by students with lack of background knowledge and weaker study skills. This may be explained by student's lower personal confidence that leads to reduced study and use of the VLE, so emphasising the importance of inducting students.

INTERNATIONAL DIMENSION

This section draws together the cultural and international aspects within the diary findings. Culture is a social phenomenon that Jarvis (2006, p55) defines as 'all the knowledge, skills, attitudes, beliefs, values and emotions that humans have added to their individual biological

base'. With this in mind caution is needed in reading the results for non-UK students as these included expatriates from, and to, the UK; and to other countries. In respect of study, non-UK students working in the UK recorded the longest hours whereas UK expatriates recorded the shortest. This suggests that working practices may reflect the origin of businesses and the 'assumptions and worldview of the culture in which they were developed' (Jordan et al., 2008, p88) rather than local custom. This variation extends to time and Brislin and Kim (2003) identify differences in cultural concepts of time that include punctuality; pace of living; and the efficiency of time use. In the latter respect it is evident that students with better English studied for longer but at a slower rate as the following comment from a female student working in the UK indicates.

"English is not my mother tongue, so I often need to refer to the dictionary to check the special terms in building technology or law, as these words are not used during my everyday life. On the other hand, my English seems to be sufficient for the purposes of the course, so I would estimate the slowing down effect as only 5%."

Female student, age 28.7, working in UK. Post-Law: Personal Comment

This suggests that second language students living outside an English speaking area can expect to achieve even slower rates. This may not just be due to linguistic capability and may reflect attitudes to time. Hall (1959; 1969) describes time as a 'silent language' within which there is either a culture of monochronic time, viewed as linear, partitioned, scarce and not to be wasted; or polychronic time viewed as less tangible, more holistic, more flexible and defined by context rather than clock. The former is more characteristic of Western practice whereas the latter applies within Eastern cultures. This may be compounded by the higher social times of students with poorer English, suggesting a preference for this over study. The findings show that students with poorer English made greater use of the VLE potentially as a source of help and guidance in lieu of face-to-face. The admin times appear to confirm this as times were higher for non-UK and UK expatriates, but less for non-UK students working in the UK, although there is some concern that non-UK students in their home country make less use of it suggesting insufficient guidance. Non-UK and UK expatriates also recorded working longer hours and the findings indicate that it is mainly these students who work more than 5 days per week. Irrespective of whether this is due to local culture or to choice in substitution for social or leisure activity it constrains study opportunity. There is evidence that non-UK expatriate students travel further both within and outside the UK forcing increased 'dead time' for study. This can largely be attributed to affordability of accommodation as UK expatriates appear to live closer to work and record shorter daily journeys. Within an international context longer travel also constrains study for UK students as the following comment shows.

"[I had an] unexpected trip to Moscow, which took up most of a Sunday and then Mon-Tue leaving me to catch-up with work during Wed-Fri, so I lost 6 days of studying as I was exhausted by the time I got to bed those evenings ..... which was followed by a 3 day trip to Warsaw, where evening programs were organised, so yet another 6 day period without much studying"

Female student, age 28.7, working in UK. Post-Law: Unforeseen Events

As the proportional matrix in figure 10 illustrates non-UK and UK expatriates record higher average domestic times which may be due to local culture. They also take longer rest periods which can be attributed to climate, however, this appears to be enjoyed more by UK expatriates as non-UK expatriates and non-UK students at home take less rest which may be assumed to be due to longer working hours. Again as the matrix shows high social times are recorded although this is generally amongst UK expatriates whereas non-UK expatriates record low social activity. This does compare with non-UK students in their home country who record high social time, however, this is not reflected in leisure. This tends to lend credence to the family centred culture emphasised by Pratt et al. (1999) in respect of Chinese students. In respect of leisure, more time was recorded by UK expatriates suggesting leisure is a Western culture, however, this may be confused with social for non-UK students. Smith et al. (2006) refer to studies that confirm that wealth influenced by new technology and global economic development has been a significant causal factor of cultural change. It was evident in the findings that expatriate students made greater use of the Internet, and this may be assumed as the preferred medium for maintaining family contact. It was also noticeable that expatriates made greater use of the VLE than UK students but that non-UK students in their home country made the least use. Clearly the need for study support influences demand for technology, however, as the following comments illustrate this is not without its constraints.

"Takes too much time to read through other people's messages however it is interesting to know about your colleagues."

Female student, age 35.5, working in Rest of World. Post-IMC: Ice-Breaker Activity

"During the first week of February, an under-sea internet cable was cut near Egypt. This made lot of websites unavailable for about 10days to Middle East and South East Asian countries. Even the VLE was inaccessible for few days."

Male student, age 27.8, working in Singapore. Post-IMC: Unforeseen Events

CHAPTER CONCLUSION

This chapter has reinforced that individuals lead 'different lifestyles and make different rates of transition between activities' (Fisher and Laye, 2004). The reference to transition is key as time use is seen to vary depending on the 'other factors'. The discussion of each time code has picked out relevant examples so that in respect of work and travel those related to security of employment, flexibility, commuting, business trips, type of employment and contract impact on the amount and efficiency of study. Within the non-work activities factors such as childcare and domestic responsibilities, support from family, socialising and in particular the level of domesticity recur as issues with both leisure and rest appearing to act as reservoirs of time to be drawn on as required. Technology use is increasingly relevant as it is pertinent to the pedagogical shift to the new generation of digital learning, identified by McConnell (2006, p171) and Laurillard (2008). In respect of Internet use there is variability which can be perceived to be age related but seems to be as dependent on access. Indeed the findings indicate that availability at the time it is required determines usage irrespective of whether this is fixed or

mobile. The pragmatism that this suggests extends to the VLE usage with evidence that students make a conscious decision about whether to participate or not. This may dispel Goodyear's (2006) criticism of increased technology use reducing students' opportunity to use time flexibly, but clearly this depends upon the level of compulsion involved. Although there is an element of choice in use of technology, the effect of the different factors on study reflect the real needs of the individual. Consequently the extent of career motivation, prior knowledge and experience, proficiency in English, the workload and pacing of study all have an influence on study, and these extend to admin time and attendance at the face-to-face. Similar issues can be seen for internationally located students although in their case additional factors include the cultural aspects of social and domestic commitments and their greater use of the Internet which is as likely to be to maintain contacts as for obtaining study support.

The relationships observed within the analysis and discussed in this chapter can be considered to be speculative, however, the findings presented here are based on recorded times. These can be taken to be reasonably accurate as the longitudinal study did not reveal any significant changes in time use with students mostly reporting overall adjustments in non-study activities of around an hour. Whilst the connections between activities can be considered realistic it is acknowledged that in some cases the number of students was too limited to reach concrete conclusions. Equally it is not feasible to say with any precision what reasoning was applied by the student in making their decisions. This aspect will be discussed further in the next chapter. In respect of the length of episodes the findings indicate that rest of up to 8 hours; work of up to 4 hours in continuous blocks of time; and domestic activity of around one hour were in line with expectations. Similarly it was anticipated that travel, Internet use, course admin and VLE use were used in blocks of less than 30 minutes; and that blocks of leisure, assumed to be in-home activity such as watching TV, accounted for around one hour. More surprising was that social time was commonly taken in blocks of 4 hours and particularly that study was most frequently completed in blocks of less than 30 minutes. Clearly these times vary and it may be presumed that the short periods of study acknowledged the breaks in study described in the previous chapter. It does, however, demonstrate that averages measured as mean or mode may not be as transparent as first suggested and can offer misleading conclusions.

What these findings do reveal is the existence of different mechanisms by which students respond to different demands. It is evident within the findings that students use substitution to trade-off between one commitment and another. For example, study substituting for leisure; MP3 player use substituting for VLE time; and students with no computer at home substituting for this by working longer hours. In the latter case an element of compulsion can be recognised as the employment imperative forces work ahead of study. This contrasts with the free life-style choice that younger students without dependent children, for instance, can make in substituting domestic time with social activity. This may be regarded as preference although engagement is a better term. Certainly there is evidence that a student either has an inclination to engage in an activity or not, and it is no revelation that some students engage fully in study whereas others do not, in the same way that a student is either attracted to the virtual or not. It can be seen that

career motivation is a factor in determining the strength of engagement in VLE activity in contrast to students with poorer study skills or faster social lives who appear to disengage from this. Again the latter may be regarded as a straightforward incompatibility and the findings do indicate that certain time activities are not fully compatible with others. It may not be surprising that a full social life is not compatible with long daily commuting or that long work hours are not compatible with a high degree of rest. At the same time there are activities that are compatible so that students with better language or study skills studied for longer and Internet access increased as domestic time increased. The latter suggests that this compatibility results from increased domesticity and in this respect the Internet access may be considered as resulting from the benefit that being at home presents. Opportunity is therefore a further mechanism as the ability to engage in one commitment stems from a lack of commitment elsewhere. The obvious examples are part time or public sector employees whose reduced work commitment means they have more opportunity to give time to other activities including study. There are others who benefit by virtue of their domestic arrangements so that students living alone can choose how to use their free time whereas those living within a family appear to be more hindered by this. Hindrance may result from a sense of obligation but this may be more formalised as the student conforms to expectations. Within the results it can be seen that elements of conformity exist such that females spent more time in domestic activity than males, the length of rest time reduced with age and international students worked longer hours. These examples suggest that such conformity stems from social, cultural or biological origins, and although not compulsion in the substitution sense the effect is that time allocation is not freely made. The findings lastly indicate that there is a logicality, or more precisely an illogicality, within some of the relationships such that some activities occur in spite of other factors. Thus there is no reason for Internet or VLE use to be linked directly to rest or for social time to be influenced by previous experience of distance study as has been reported. The fact that the time given to assignment completion is seen to increase as the hours worked increase serves to demonstrate the potential limitations of disaggregate analysis and it is recognised that the mechanisms discussed here are based on interpreting results that may, in some cases, be atypical. Generally the mechanisms do fit both with the findings, and with economic theory, however, at the same time it is acknowledged that certain factors are notable for having little or no apparent impact on time. The observations reported in this chapter represent approximately one third of the combinations examined. The remainder were judged to reveal no significant difference which in terms of the individual may be interpreted as signifying indifference. Underlying these mechanisms is preference which may be either positive or negative, or may be neutral if the student is indifferent. The result is that how an individual chooses to use their time is not predictable in any conventional sense, and if life is no longer 'unidirectional' (Øian, 2004) the indications from this chapter are that seeking averages is not viable. Instead it is the contingency that the students can deploy within their temporal relationships that matters when other factors intervene. This emerges as the real issue rather than precision over how much time is available or needed. Consequently the following chapter discusses these and previous findings within the context of the aspiring professional.

Chapter 6

PROFESSIONAL STUDIES AND TIME

"The time which we have at our disposal every day is elastic; the passions we feel expand it, those that we inspire contract it, and habit fills up what remains."
(Marcel Proust, In Search of Lost Time, Volume III: Within a Budding Grove)

The previous chapters have provided an overview of the students investigated for this research and have offered insight into their time issues. The findings reported have summarised the perceived and actual times of students, the durations of activity episodes and the general distributions of time across a day and a week. They have highlighted connections apparent between activities and individual's commitments, and that identifying common groupings has limited viability. Individual mechanisms by which students approach decisions on their allocation of time have been identified but no coherent explanation for how these combine has been reached. Consequently this chapter discusses the findings from both an accounting and economic perspective and further considers the issues for time management within the professional student's context. The results from stages 1-4 are discussed together with the findings from stage 5 that collected feedback from 55 Part 2 students twelve months after the main research period. The feedback questionnaire is shown at appendix 10 and for ease of reference the summary data is shown at appendix 14.

ACCOUNTING FOR STUDY

Given their career focus and technological competence the student profiled in chapter 4 may be considered to conform to the general picture of a late modern lifestyle in which work and income take priority. However, in line with the literature, atypical students can be identified within this profile as those with young families, non-UK students and students indicating a non-stop social life, as illustrated by the following comments.

"I attend regular weekly dance classes, 2 - 3 evenings a week. I do dance gigs 3 - 4 evenings per month. I also try to fit in dance rehearsal / practice time on the weekends where possible .... I average about 14 hours per week for socialising. I do not socialise on a daily basis."

Female student, age 39.4, working in UK. Pre-Course: Other Social

"Other commitments make it difficult to specifically designate certain times each week for studying, such as weekend socialising and family commitments."

Male student, age 35.4, working in UK. Post-Law: Protected Time Problems

"Rotation 28/28: 28 days - 11 hours per day and 28 days off"

Female student, age 31.3, working in Rest of World. Pre-Course: Other Employment Status

These comments reinforce that time use varies with context and circumstances, and makes the extent of this variation of specific interest. The problem exposed in chapter 4 is that statistical techniques have limited use when data is not normally distributed, values are excessive or correlations are weak. The solution to this could be to restrict the data so that it

falls within the norms for statistical analysis but this would not enable the holistic view that the findings so far indicate as being necessary. Adopting such action may, however, account for the limitations of research into student time that has previously been undertaken. If human diversity means that individuals think and act differently, the necessity for attempting to pigeon-hole students into common groupings must be questioned. Is it the individual, the group or the lifestyle that matters? Clearly within distance education the individual is the priority consideration and their needs are mainly dependent upon their personal characteristics, as influenced by the demands of their lifestyle. Unless the design of study requires the accommodation of the needs of groups, as opposed to individuals, pursuing their collective identity appears to be both irrelevant and an impossible mission. Although this may be the logical conclusion the findings do suggest that basing design around an average student is itself not sufficient. The difficulty is that the concept of average students and average times tends to be bound up with an accounting process that seeks to derive definitive values. In this respect, these results show that students allocate their time to differing degrees, and approaches that simply seek numerical algorithms appear deficient if they only account for minutes and hours. For example, static models such as described by Burt and Lloyd (2005) use the zero sum concept to identify where surplus or deficit exist. By including satisfaction into their dynamic model they go part way in acknowledging a broader economic basis but their deficiency is to exclude account of the whole-life events that affect students and influence their time allocation. This criticism can also be levelled at Carroll's 1963 model of school learning for offering a numerical explanation for the degree of learning that is limited to the individual and the institution. Whilst McIlgrath and Huitt's 1995 censure of the model for focusing on quantity to the exclusion of quality can be supported, it is clear that, like Burt and Lloyd, this deficiency results from constraining the model to the process of study without considering the wider environment in which learning takes place. Despite its deficiencies an accounting approach is helpful for understanding the higher level results of education, and the findings do affirm that perseverance, prior knowledge, pacing, instruction, communication etc. are factors that have a strong influence on study. If completion of coursework is an indicator of success and educational gain it can be concluded that the IMC students did achieve this as over ninety percent submitted their first and second assignments with less than 5% failing either. Integrating study into a weekly routine is a major hurdle to be negotiated by distance students, as the following comments show.

"To begin with I found fitting the course into my life very stressful."

Female student, age 24, working in UK. Post-IMC: Further Comment

"I think the first module after a break is always the hardest to get into as you get out of the habit of doing work at night and at weekends. I think that this module is going much better for me as now I understand that if you use your time carefully you can do most of the things you want."

Female student, age 25.1, working in UK. Post-IMC: What Changes Can The College Make?

In spite of these initial problems almost three-quarters of students went on to pass the Part 1 course but 12% withdrew or deferred, almost all during the IMC module, reaffirming that early pressure on time is a retention issue. However, as illustrated in figure 25a, the longitudinal

findings do show declining performance as the stage 4 sample of students moved between modules. This was most pronounced for the law and practice modules, and the trend is repeated in figure 25b that shows a progressive decline in students' perception of their learning.

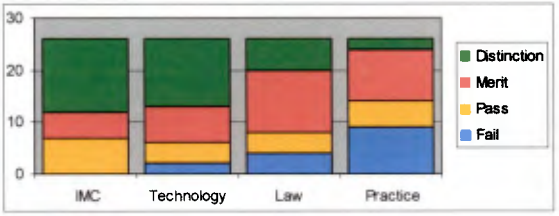


Figure 25a: Module results

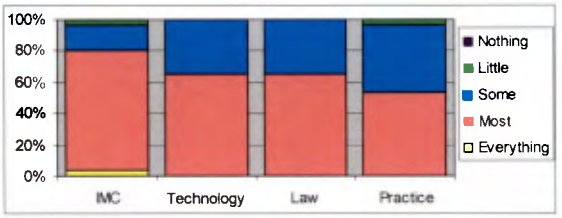


Figure 25b: Percentage learning by module

Not all of this decline can be attributed to reduced study or VLE time. In fact the stage 4 findings show that weekly study time across the modules only varied by one hour around an average of 14.4 hours. At the same time a downward trend in VLE use was seen with this falling from 4 hours to 2.8 hours. This may not seem significant but, given the activity driven nature of the teaching, it signifies reducing engagement and performance as confirmed by the findings. This is apparent from the fact that almost a third of students failed to submit their second practice module assignment. This may partly be attributed to fatigue due to the intensity of the course, however, the lack of correlation between either study or VLE times and any other time activity suggests that this decline is largely subject specific rather than time or energy dependent. This lends credence to Carroll's model that a student's background knowledge and aptitude is as instrumental in determining success as the time they allocate to study. It does, however, raise questions as to how much better students might have fared if they had more time. A partial answer to this comes from consideration of time poverty. Harvey and Mukhopadhyay (2007) graphically illustrate that a person is time poor if their required time is more than their available time and clearly the less spare time a person has the more time pressurised they become. A caveat to this, argued by Goodin et al. (2008, p81), is that this only holds if activities are genuinely obligatory. In their view pressure implies a compulsion forcing people to commit time to activities whereas individuals often choose to take more time than necessary. The findings from the previous chapter suggest that there is truth in both these contentions but that the over-riding factor for these students is career development. In this regard, the perseverance that is fundamental to Carroll's model of learning is evident, stimulated by the motivation that is a singular characteristic of the professional student. As the quote below illustrates, the life events around which a student must negotiate time for study can be extreme.

"My boyfriend had to deal with false allegations ending up in court, his divorce isn't exactly an easy and peaceful one, he has just lost his job and as a consequence suffers from various stress related illnesses. I moved and refurbished my flat during the autumn of 2007, started a new job, my mum's terminally ill and my family is in another country, so remotely demanding my attention and mental/financial support as well as my visits 4 times a year. I also have a stress related illness which prevents me from doing sports, so recreation in this environment is "slightly" difficult. These are of course my private problems, and I try to do my best to study and don't fall behind too much. It's not easy."

Female student, age 28.7, working in UK. Post-Technology: Home/Domestic Comment

This student went on to pass demonstrating an extraordinary degree of resilience and determination. These may be attributed to individualistic single-mindedness but is as likely to be for sound financial reasons as membership of professional bodies brings significant salary rises. Although they may be impoverished the findings and academic outcomes demonstrate that the majority are not time poor to the extent that motivation prevents them from creating time for study. In this respect, the pre-course results indicate that very few students had previous experience of weaving distance study into their week so, accepting that most were not time impoverished, it is worth reflecting on whether students followed a similar strategy for creating time.

Daily activities are inevitably subject to temporal and spatial constraints on when and where they can be carried out and for how long, and the individualism that the students exhibit establishes expectations for this. In this respect Giddens' theory of structuration (1984) holds that it is the pre-existing social structure of norms and rules that shapes what an individual does. Rules here refer to the pattern of life adhered to by the individual, however, these may be distinct from other social structures and may vary as social practices are re-examined and reformed through 'reflexivity' (Giddens, 1991). Consequently it can be anticipated that structure is not permanent and may be altered by those involved. To examine this, the findings from the pre-course questionnaire, summarised in table 7, can be considered as reflecting the 'average' student's allocation of time before commencing study and compared with the average diary times that recorded time after study started, shown in table 8.

Daily Work Commitment		
Average working day	7.4 hours	
Average paid overtime	0.8 hours	
Average commuting time	1.0 hours	9.2 hours
Daily Non-Work Commitment		
Average domestic duties	2.4 hours	
Average social activity	2.8 hours	
Average technology time	1.5 hours	6.7 hours
Daily Resting / Sleeping		
Average rest time	8.1 hours	8.1 hours

Table 7: Average Weekday Time Commitments from Pre-Course Questionnaires

Daily Work Commitment		
Average working day (including overtime)	7.6 hours	
Average commuting time	1.4 hours	9.0 hours
Daily Non-Work Commitment		
Average domestic duties	1.9 hours	
Average social activity	1.0 hours	
Average leisure activity	1.4 hours	
Average online time	0.4 hours	4.7 hours
Daily Resting / Sleeping		
Average rest time	8.1 hours	8.1 hours
Daily Study Commitment		
Average study activity	1.5 hours	
Average VLE activity	0.5 hours	
Average admin activity	0.2 hours	2.2 hours

Table 8: Average Weekday Time Commitments from Diaries

Acknowledging that the two sets of data record perceived and actual weekday times, it may still be assumed that certain activities remain relatively constant. Work should more or less be the same and here the pre-course responses indicated a lower average daily time than the diaries. This may be due to under-reporting but as work is generally fixed this is less likely. More probable is the separation of normal working hours and overtime in the pre-course questionnaire and an inclusive code used for the diaries. In fact if normal and overtime are combined the daily work time from the questionnaire is 8.2 hours compared with 7.6 hours from the diaries. From this it may be construed that students found time for study by reducing their overtime as the weekly average diary work time of 39.0 hours is close to the pre-course 41.4 hours for work and overtime. If accepted, this only accounts for a fraction of the study time and is offset by travel which increased from a pre-course average of 1.0 hour per weekday to 1.4 hours from the diaries. Direct comparison of travel times is not possible, however, as the pre-course questionnaire referred specifically to commuting whereas the diary collected data on this and other work related travel. Even so if work and travel are combined the overall time saved over a 5-day working week is just 1 - 3 hours.

If time is not found from within the work commitment then the presumption is that students compressed their non-work activities. This appears to be true for weekday domestic time which reduced from 2.4 hours to 1.9 hours, and for social time which reduced from 2.8 hours to 1.0 hours. However, in the case of social time, the change is not so dramatic as the pre-course questionnaire did not differentiate between social and leisure. If the diary times for these are combined they average 2.4 hours per weekday, a reduction of 0.4 hours but that only releases 2.0 hours across the working week. Time spent using technology may also be included within this comparison. The pre-course time estimated for weekday use averaged 1.5 hours which contrasts with the 0.4 weekday hours spent online taken from the diaries. Although this suggests 5.5 hours was released for study over a working week this cannot be assumed as, similar to travel and commuting times, the results are based on different questions.

This brief contrasting of weekday results demonstrates that there is no clear answer to where students find time for study. It may be assumed that if time is not found during the working week that it must be found at weekends. In this regard the diary averages for all activities, other than those that are study related, total 21.8 hours for weekdays and 19.6 hours for weekends. This leaves an average of 2.2 hours per day during the week and 4.4 hours per day at weekends, amounting to 19.8 hours average time for study per week. Behind this lack of clarity may lie the habitual routines that students adhere to. Gershuny (2000, pp91-92) points to a distinction between routinised behaviour conforming to norms and motivated action resulting from rules and regulations. For College students these are evident for activity such as meeting up with friends or going to work but not for distance study as, in the majority of cases, there is initially no established pattern of behaviour. In this respect both Gershuny (2000, p90) and Large (2008, p90) highlight the habitual nature of time allocation and the findings suggest that certain daily activities are routine and fixed in duration whereas others are more variable.

This was presented back to students during stage 5 for their feedback based on their experience over 18 months. Students were asked to indicate the strength of their agreement that their weekly time for each coded activity was either constant with little variation or flexible with times varying widely. As shown in figure 26 the majority agreed that work, travel, domestic and rest are constant and that social and leisure are flexible. Strength of agreement was less for Internet use as a flexible activity, however it would not be right to regard this as a constant time activity as, in line with the diary results, almost a third had no feeling either way. Interestingly the three course time activities received the greatest diversity of answer with only a minority agreeing that study and VLE time were constant and admin time flexible. From this may be interpreted that students regarded the time they gave to physical and virtual study as variable depending on their other circumstances, although this cannot be considered conclusive as almost a quarter failed to agree.

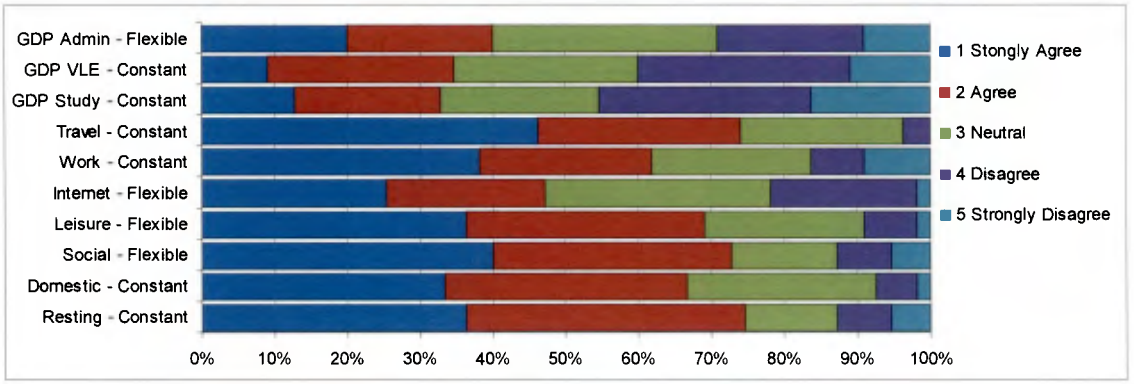


Figure 26: Constant / flexible nature of time activities

Despite the proportions that disagree in respect of the three study related activities, and to an extent in respect of the flexibility of Internet use, the inference from the results in figure 26 is that the majority of students are habitual in allocating their time. Given that the results were recorded 18 months into their studies, so may not be rejected as the idiosyncratic responses of new students, the findings lend weight to an argument that the main body of students settle into a routine pattern of study that suits their individual circumstances. The spread of responses, demonstrated both in figure 26 and table 5 in chapter 4, indicate that this majority form a group that may be termed 'standard' students. Use of the term standard differentiates them from the average student which implies a strong central tendency. It also distinguishes the majority from the non-standard students who, as well as disagreeing with the results in figure 26, potentially record uses of time at the extremes as illustrated by figure 6 in chapter 4.

STANDARD AND EXTREME TIME USERS

Understanding the extremes appears to be as important as understanding the centre, and support for a distinction between standard and non-standard students is seen in the findings. Both the analysis of the diary times, and the disaggregate analysis of these against the

questionnaire responses, show that there are ranges of time that can be considered standard outside of which there are high and low extremes. What is not apparent is the proportion of students who can be classed as standard. With this in mind a simple quartile analysis of the student's coded activity times was carried out to determine whether these fell within the lower (L), inter (M) or upper (U) quartile ranges calculated from all 363 diaries. By definition the inter-quartile range accounts for 50% of students and for the purposes of the initial exercise this was considered to be representative of standard time use. The assumption was that for a student to be fully standard in their time use across all activities they would record 'M' for each activity. In fact the results showed that only two students recorded M scores for all ten activities and three students recorded nine reinforcing that the fully 'standard' student is an exception. At the other extreme a similar result was found with two students recording zero M scores and eight recording one. Figure 27 plots the variation in the average number of scores in each quartile range as the count of inter-quartile scores varies from zero to ten.

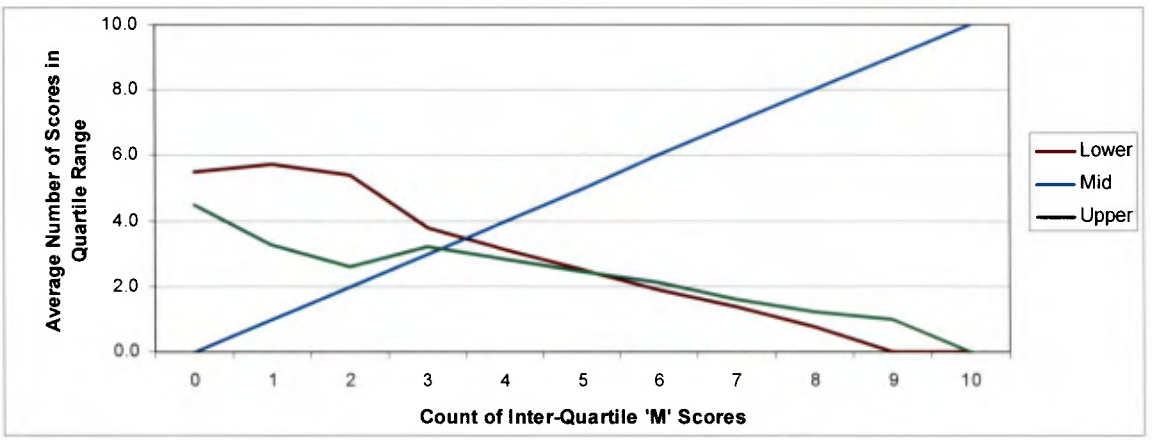


Figure 27: Variation of Quartile Values

The figure highlights that at the lower counts of M the difference between the average number of U and L scores is much greater than at the higher levels, with the average L score exceeding that for U. This suggests that the non-standard student with very few M scores tends to allocate less time to a majority of activities as a result of giving more time to just a few, for example, the student with a non-stop social life. As the number of M scores increases the gap between the L and U scores reduces until the scores are more or less the same. At the higher levels the reverse, but less pronounced, situation occurs with U scores exceeding those for L indicating more time being given to just a few activities such as domestic or travel. This variation at the extremes can explain why students resort to attribution theory in blaming the study content for their performance. This is a double edged sword as the indications from figure 27 are that insufficient study time is likely to be due to excessive time use in other more preferred activities. At the same time students complaining of taking too much time for study are likely to have diverted this away from other commitments. Quartile analysis has limited value for determining the proportion of students who may be classed as standard. Consequently following a similar process the mid range was iteratively increased from 50% to 90%. This revealed that there is little significant change in the distributions up to a 70% mid range. After 80% there was a more

significant shift with a sharper increase in M scores; no students recording U or L values with an M count less than two; and barely any gap between these at the higher level. Although simple this analysis serves to demonstrate that the concept of a standard student is realistic and offers a more rational description than average. It also gives a strong indication that the proportion of students who are standard lies between 70% and 80%. To confirm this two questions were posed to students during stage 5 about their time use over the 18 month period. The first asked them about the accuracy of the average hours for each activity as listed in figure 28. The times offered were synthesised from all the data collected but with adjustment to reflect the general case (eg no face to face) and the feedback comments.

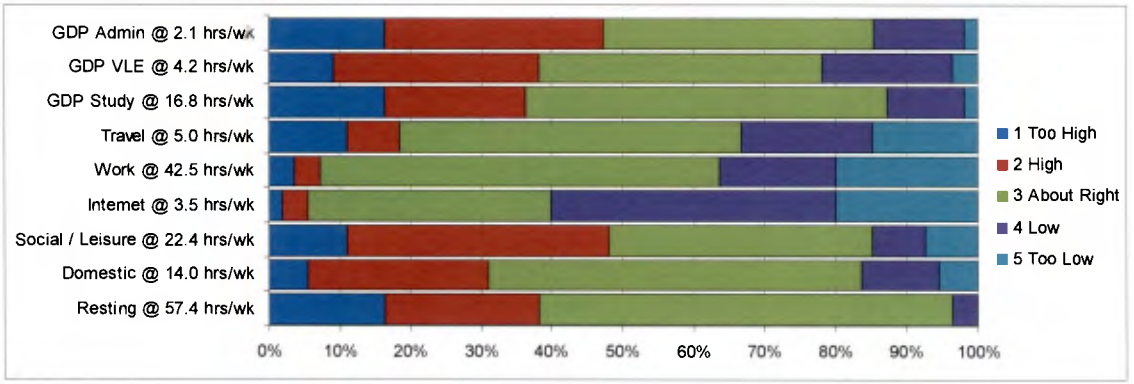


Figure 28: Responses relating to accuracy of average weekly times

Over half the students indicated that the average times for resting, domestic, work and GDP study were about right. In the case of rest, domestic and study the majority indicated that the times quoted were over-estimated, whereas, for work most indicated the time to be under-estimated. Almost half the students considered the average time for travel to be about right with more students considering the hours to be low than high. The reverse was the case for the time for the combined social and leisure activities and for GDP VLE and admin with the majority of responses indicating the hours quoted to be high. The most significant difference was for Internet use where almost two-thirds of students indicated that the time quoted was too low. The indications are that a 10-18 hour range for combined study related time allows most to complete satisfactorily. The wide variation in responses does again confirm that attempting to be precise about the amount of time available to an 'average' student is not feasible. Anticipating this the second question asked students whether their weekly time fell within the bands shown in figure 29. This received a more positive response with over 70% agreeing that the range was inclusive for their activity times. The exceptions were work and travel which were marginally below this and Internet use which received significantly less agreement with feedback indicating this range to be too low.

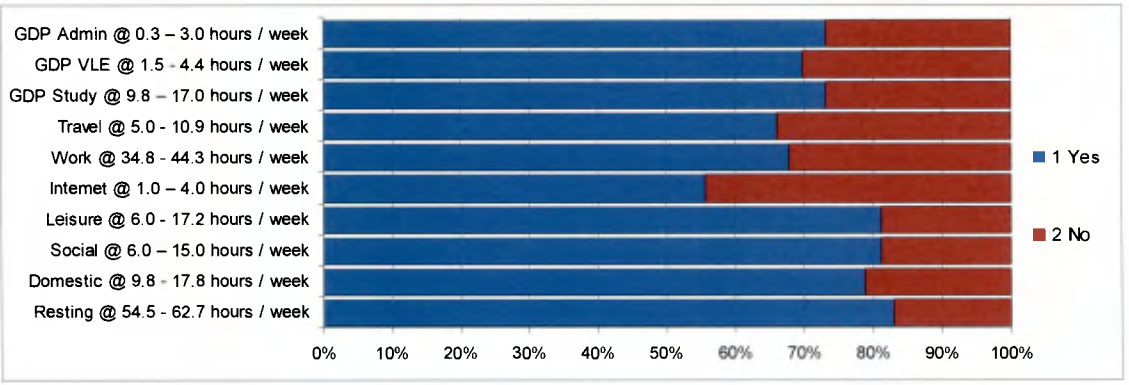


Figure 29: Weekly Time Range for the Standard Student

Allowing for the relatively small sample the 70-80% agreement rate is commensurate with the diaries and the adapted quartile analysis above, and is in line with Lockwood (1997) who suggests that two thirds to three quarters of students normally represents the majority. If it is accepted that 75% of students can be regarded as standard, the implication is that treating all students the same is not realistic as one in four are non-standard. The same proportion of standard and non-standard is found for study and VLE as separate activities suggesting that these alone are not responsible for the imbalance in time allocations, and this potentially holds repercussions for time management.

MANAGING TIME

During stage 4 students were asked after each module to indicate how much time they had available for study each week compared to their expectation. Almost a third indicated no change and a further third indicated they had more time. The remaining third indicated a reduction, of whom almost half indicated this was considerably less. This reduction was highlighted in figure 14 in chapter 4. Of concern is that a fifth indicated that their available weekly time reduced by 2-3 hours from at or above expectation to below expectation. Figure 30 summarises the variation in time for study and VLE across the longitudinal survey. The overall trends are illustrated for each of the 26 students as stock charts that show the change in weekly hours between the initial IMC and final practice modules, and the maximum and minimum values from the technology and law modules in between.

In figure 30(a) over a third indicated a nett increase in study time with more than half showing a nett reduction. The overall average across modules was 14.7 hours, equating to 2.1 hours per day which is marginally higher than the 1.9 hours recorded from the diaries. Despite this similarity, concerns exist that almost a third indicated less than 10 hours available time per week, however, this contrasts with a quarter who gave more than 20 hours, in some cases making substantial increases.

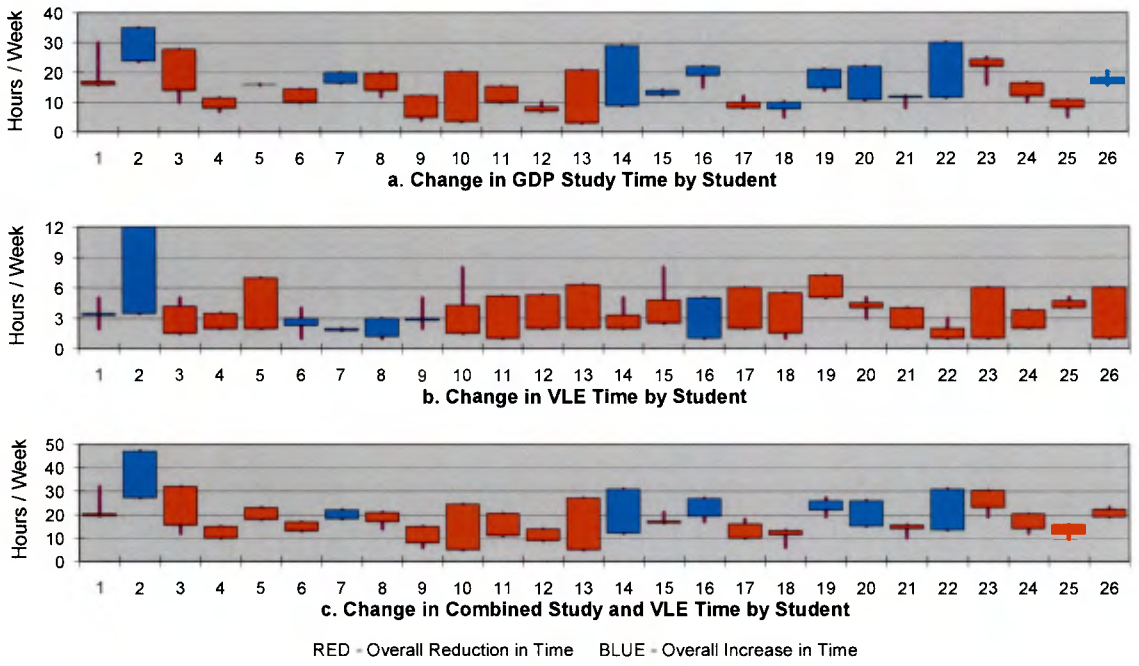


Figure 30: Longitudinal variation in weekly study and VLE hours

The change in VLE time, shown in figure 30(b), was more pronounced with almost three-quarters of students indicating a reduction in the time spent on the VLE of 1-3 hours per week. The overall daily average across modules was 0.5 hours which is the same as the average hours from the diaries. The episodes generally indicate durations of less than 30 minutes but with some extreme instances. This suggests students go to the VLE to do what is required but do not linger. Although the reduced time can seem alarming, a weekly time of around 3½ hours per week represents almost 20% of the weekly study time which appears to be reasonable. Considered together the total time given to study and VLE summarised in figure 30(c) generally reduced with just a third of students indicating no change or increased time. The overall average across modules was 18.3 hours, excluding admin time. The conclusion that can be drawn from the figures is that students adjusted their time, particularly on the VLE, due either to inexperience or to other factors as the following comments illustrate.

"Due to much of the course being completely new to me I feel that I put in a greater effort to understand the subject and gain a good mark, rather than dedicating less time."

Male student, age 35.4, working in UK. Post-Law: Course Comment

"Work pressures requiring large amounts of overtime and weekend work, preventing time for study."

Male student, age 28.7, working in UK. Post-Technology: Unforeseen Events

The overall reductions tend to demonstrate that the changes to study patterns indicated in the post-IMC questionnaire, such as making better use of gaps in work time or reducing social or leisure activities, were not implemented. It does appear that a notional time ceiling may exist as the findings show that only a quarter of students, mainly identified as part-time workers, continued to give in excess of 20 hours per week whereas most students reduced or maintained their time below this threshold. In respect of admin time the diaries indicate an average of 0.4

hours per day, equivalent to 18.7%, with most episodes lasting less than 30 minutes. Within this there is a skew towards a higher value due to the Saturday face-to-face attendance and to students newer to distance learning. The stage 4 findings indicate no overall change with just two students making significant reduction and three an increase. With adjustment, the findings suggest that 12-15% of the students' study time can be assumed to be allocated to admin which would be consistent with the 10-20% suggested by Thorpe (2006), Ralph (2004) and Anderson and Walberg (1993). It is not possible to determine the average time required for attendance at the face-to-face as this is dependent on travel distance, however, the indication from comparison of attendees and non-attendees shows this to be up to 16 hours. This represents a considerable additional burden even allowing for the finding in the previous chapter that students attending the Saturday face-to-face recorded more study time than those who did not attend.

Taken overall the variation in times illustrated by the movements in figure 30 suggest that students find a total time commitment that they are comfortable with. For the majority, who may be regarded as standard, this amounts to around 14 hours for study and 3½ hours for VLE use. If admin time is taken as 15% then this accounts for around 2½ hours. It is therefore reasonable to anticipate that a standard student dedicates up to 20 hours per week as a maximum. If it is accepted that work, travel, domestic and rest are relatively constant for these students, then a further 120 hours of the week is accounted for, leaving 28 hours for the flexible activities as illustrated in figure 31.

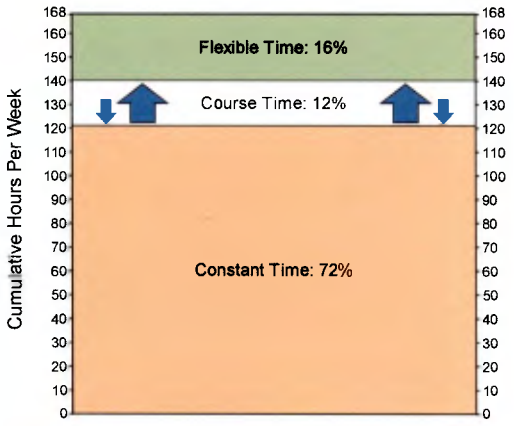


Figure 31: Constant and Flexible Time

Clearly there is the potential for the constant activities to reduce but the initial presumption, as discussed earlier, was that students prefer to adjust social, leisure and internet time to make space for study and this was again tested during stage 4. Based on their experience the last questionnaire asked students to rank their preferred strategies for creating extra study time. The results show the most preferred strategy was to take annual leave followed by reducing social time. Reducing domestic time was the next most preferred strategy followed by reducing leisure and working shorter hours. The least preferred strategy was to take unpaid leave. These findings suggest that adjusting the time for the flexible activities was not the predominant strategy. This confirms the previous conclusion and indicates that compressing personal time

ahead of activities affecting family, work or income was preferred. As figure 31 shows this leaves only a small proportion of the student's week to distribute requiring them to make difficult decisions. The following comments illustrate the adjustment made by three students. In particular the third emphasises the inflexibility of work and domestic time causing the student to tap into rest as a time reserve.

"To do domestic chores such as shopping, cleaning and cooking. It's taken me by surprise how much time normal routine takes up. I'm now beginning to split the duties with my girlfriend, but we both have the pressure of work and study so we have to be careful with our time!"

Male student, age 26.3, working in UK. Post-IMC: Other Reason To Break Study

"Weekend cricket has taken a nose dive as it is too time consuming (the odd evening game keeps the pangs at bay). I basically have to keep a day at the weekend free for study else there is too much 'pressure' during the week. That day at the weekend plus staying late to study on the quicker connection at work for two nights a week usually give me enough time to keep up."

Male student, age 35.7, working in UK. Post-Law: Further Comment

"No matter how much time is allocated, work demands pay no reverence, with the knock-on effect being in terms of rest requirements being rescheduled, to reduce further the use of allocated time for study. Domestic issues also pressure the use of time for study."

Male student, age 28.7, working in UK. Post-Law: Protected Time Problems

The comments emphasise that the human dimension involves the exercise of preferences in how activities and commitments are woven together. In this respect, the episode durations indicate that half the coded activities were commonly completed in blocks of 30 minutes or less. Of the others, rest, work and domestic activities take longer through necessity, if not compulsion, with the longer times for leisure and social reflecting lifestyle choices. It can be surmised that students use short bursts of study as a device for weaving this into their other activities, however, given the previous discussion in chapter 4 in respect of the number and length of breaks in study this may be more questionable if students recorded these separately in their diaries. Even so 30-35 minutes appears to offer a realistic value for the duration of a block of continuous study. Students participating in stage 4 were asked to indicate how well they believed they had managed their time during each module. Over half indicated no relative change over the period with almost all rating their time management as reasonably good or better. A quarter, however, indicated that in spite of over 8 months experience they continued to struggle or managed their time poorly. Although these may be non-standard students this shows that it cannot be taken for granted that time management improves with experience; and that life events tend to dictate matters irrespective of best intentions.

The events that had the greatest impact for all students were assessment and taking holidays. In the latter case this was a particular problem for those with family as the following comments illustrate.

"A 2 week break can easily put you behind in your studies and cause a lot of extra pressure and stress. It is unlikely that Assignment 2 will be of high quality due to the lack of time."

Female student, age 39.4, working in UK. Post-IMC: Unforeseen Events

"Upon return [from a family holiday which had been previously booked] I was suffering from a cold which meant I couldn't study for another week so in total I missed a month of study and had to apply for an extension for Assignment 2 of the Law module. I have finally got the assignment in and am desperately pushing to catch up on the next module."

Male student, age 28.6, working in UK. Post-Law: Unforeseen Events

"As a parent the advent of the summer holidays made this a particularly difficult time to find the time and space for study."

Female student, age 37.4, working in UK. Post-Practice: Home /Domestic Comment

The post-practice questionnaire showed that almost all the stage 4 sample of students took holiday mostly of one week or less. Although a third indicated they studied while on holiday, over a third of students used a 'get ahead' or 'catch up later' strategy for creating holiday time with around a tenth either accepting that they would stay behind or using 7 day assignment extensions to create time to catch up. Holidays were not the only reason for requesting extensions and it was noticeable that the number of requests increased almost eight-fold as students moved from the two coursework only modules to the two examined ones. This suggested students managed their time better during the earlier more practical study than during the later less familiar and more complex subjects. It further suggests that the reduction in assessment performance highlighted in figure 25 was in part due to added time pressures from holiday taken over the summer period when the law and practice modules were presented, and to fatigue, as the following comment highlights.

"Holiday booked for the first week of the revision break, due to exhaustion. Effectively not affecting study, as revision is working better for having a break away."

Male student, age 28, working in UK. Post-Practice: Creating Holiday Time

In respect of exam revision the findings show that, in contrast to the general case, the preferred options for creating time were to reduce time given to social and leisure activity. These were followed by reducing domestic time and either taking annual leave or using study leave. The least preferred options were to reduce rest or to take unpaid leave from work. This suggests that the importance of exams causes students to compromise on social and leisure activity which previously they appeared more reluctant to do.

The above discussion considers time in relation to specific events, but on a week-to-week basis it is the time that a student protects from other activities that is critical. Consequently, the stage 4 law and practice questionnaires asked students to state the weekly hours they ring-fenced for study. Figure 32 indicates that this varied by student and by module, with the average time increasing from 9.2 hours during the law study to 10.8 hours during the practice module, and this increase can be attributed to the needs of the more demanding subjects and the experience from previous study. Given the earlier discussion of study variability the indication from this is that the comfortable weekly time for study is around 10 hours per week. This would be consistent with the times indicated in the pre-course questionnaire and previous surveys of College students that have showed 7-10 hours as being a natural weekly rhythm for study.

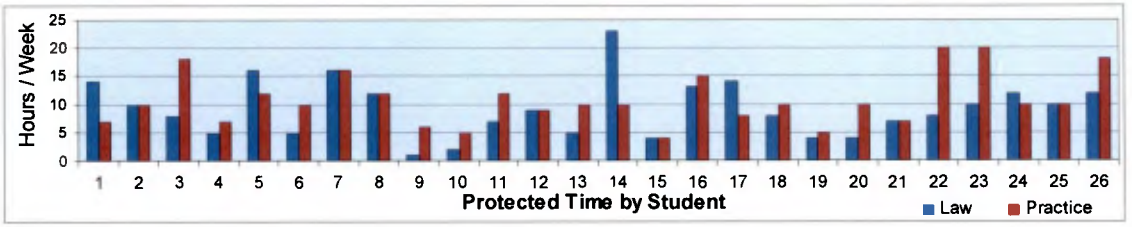


Figure 32: Protected study hours per week (law and practice modules)

ECONOMICS OF CHOICE

Finding a rhythm that suits a particular student is necessary if he or she is to adopt the discipline required for distance study, and it can be anticipated that this is easier for the standard student. This may be the general case, however as has been reasoned so far, students do not follow the same pattern and allocate their time within ranges that are likely to be more predictable for standard students than for non-standard ones. Irrespective of whether they are standard or not each student makes decisions in how to spend their time, however, the process by which this occurs is not explained by accounting methods alone and for this it is necessary to turn to economic principles. Figure 31 graphically illustrated the relative scarcity of time within the working student's week. Consequently, as has been discussed in chapter 2, it can be expected that they will use their time rationally to maximise the utility. For the distance learner this derives from the satisfaction gained from allocating time that provides optimum study opportunity. Burt and Lloyd (2005) refer to satisfaction explicitly within their dynamic model and describe the total educational gain as the utility of study, and both Carroll (1963) and Ralph (2004) allude to it in linking time to quality of learning. At the same time, Michelson (2005, pp86-87) cautions that satisfaction in time use is highly subjective, not least as decisions are made with regard to an uncertain future that may affect the present value of the future benefits of study. Even so it is not unreasonable to anticipate a position to exist where a student has their work-life-study commitments in equilibrium. In economic terms this is dependent on the marginal utility of study compared to that for other activities, and only when these balance does equilibrium exist. However marginal utility is a diminishing value as this is considered to reduce as more is consumed beyond a threshold of satisfaction. Within the findings this is more evident in relation to VLE use as the comment from this male student indicates.

> "Lots of messages posted by fellow students were too long, to read that itself requires more time. Some of them were not even worth in any way."
>
> Male student, age 30.6, working in UK. Post-IMC: Participation In Online Discussion

Consequently more is not necessarily better and, in respect of study, it would be natural for the student to gain greatest satisfaction from completing this in the shortest time, but for this satisfaction to reduce as study takes longer. The indication from the earlier discussion of protected time is that this threshold may be as low as 9 hours study per week. Marginal utility can, therefore, be used as a basis for optimising study opportunity and measuring time

preference, but on a diminishing scale. In the case of the female student below it can be interpreted that she has obtained increased utility from the opportunity for extra time to study in preference to longer rest.

"I found that I could only rely on 2 hours morning study during the weekend, when I woke up, but my boyfriend was still asleep and so I had 2 hours to quietly read. Otherwise I had to be flexible regarding study times."

Female student, age 28.7, working in UK. Post-Law: Protected Time Problems

A further interpretation is that her domestic arrangements mean that her decision is more compulsion than choice. This raises the possibility that each additional hour of study at the expense of rest increases her physical and mental fatigue thereby lowering its contribution to total utility. This example reinforces that students allocate their time through mechanisms such as substitution and trading-off between commitments but that this is affected by the student's bargaining power. In economic terms this conflict is represented by the opportunity cost of giving up an alternative use of time or, put another way, it is the loss in benefit that could have been derived if an alternative action was selected. This is amply illustrated by the following comments that emphasise the compulsive nature of some decisions. In these cases the students are under a strong moral obligation to give time to sick family even though they recognise that their studies will suffer.

"My wife had fallen sick that caused me to spend more time on domestic activities which finally resulted spending less time on the IMC module."

Male student, age 26.8, working in Rest of World. Post-IMC: Unforeseen Events

"My father is 86 and I end up looking after him a lot, as my mother needs time off so sometimes it is difficult to find time in the evenings to work uninterrupted. I had a pace maker implanted in July - so had to have time off for that. This did make me a bit depressed for a while and so my coursework suffered - got my lowest mark in law 2 - but I think I'm back on track now!"

Female student, age 25.6, working in UK. Post-Practice: Home /Domestic Comment

The post-IMC questionnaire asked students to indicate reasons that cost them time for study. These are summarised in figure 33 and, as can be anticipated for these students, workplace demands had the greatest impact. This was cited by substantially more students than for social, domestic, health or leisure demands reinforcing the priority given to work and career.

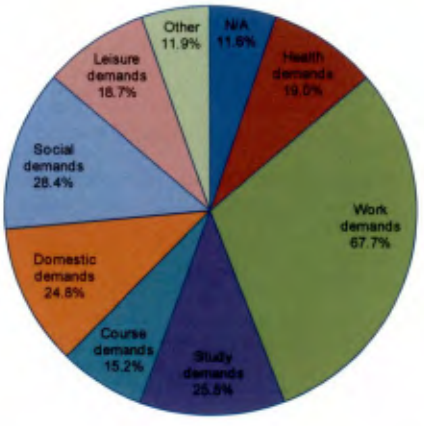


Figure 33: Time pressures affecting opportunity for study

The stage 4 questionnaires followed this up and asked students to rate the effect of specific factors on their weekly time commitment expressed as a percentage reduction. The weighted averages are shown in table 9 from which it is clear that course factors tend to have the greatest impact whereas factors occurring in the student's home or domestic environment are perceived as having least effect, and over the period, it was observed that crises in the home or family had only a short term impact on study time.

Effect	Factor	Dimension	Effect	Factor	Dimension
88.6%	Marriage	*Home / Domestic*	72.9%	English Language	*Personal*
83.9%	Family Illness	*Home / Domestic*	72.3%	IT Access	*Personal*
82.5%	New Job	*Employment*	72.3%	Working Away	*Employment*
82.1%	Bereavement	*Home / Domestic*	71.8%	Background Knowledge	*Course*
80.9%	Adult Care	*Home / Domestic*	70.9%	Social Problems	*Home / Domestic*
79.3%	Moved Home	*Home / Domestic*	70.5%	Holiday	*Home / Domestic*
77.0%	Redundancy	*Employment*	70.4%	Job Hunting	*Employment*
76.8%	Own Illness	*Home / Domestic*	69.6%	Assignment Expectation	*Course*
75.9%	Workload And Pace	*Personal*	67.1%	Academic Difficulty	*Course*
75.0%	Household Problems	*Home / Domestic*	66.9%	Material Difficulty	*Course*
74.7%	New Baby	*Home / Domestic*	66.9%	Study Skills	*Personal*
74.4%	No Quiet Time	*Personal*	65.7%	Falling Behind	*Course*
73.9%	Family Problems	*Home / Domestic*	60.8%	Content Relevance	*Course*
73.9%	Demands At Work	*Employment*	57.1%	Learning Activity Misunderstanding	*Course*

Table 9: Average percentage reduction in study opportunity

It was also noted that several students considerably scaled back their initial perception of the effect that some factors had on their study. These included household problems, background knowledge and assignment expectation suggesting that experience proved their initial fears to be unfounded over time. The range of values in the table do illustrate how life events potentially combine to impact on the demand and supply of time that is fundamental to delivering utility. As described in chapter 2 the opportunity cost of undertaking one activity in preference to another can be used in place of price, and taking marriage arrangement as an example, table 9 indicates that directing time to this means sacrificing around 11% of time that would have been given to study. Of greater impact is misunderstanding the requirements of the learning activities which potentially reduces the study time by over 40%. If these are translated into figure 34 the effect is to cause movement along the demand curve.

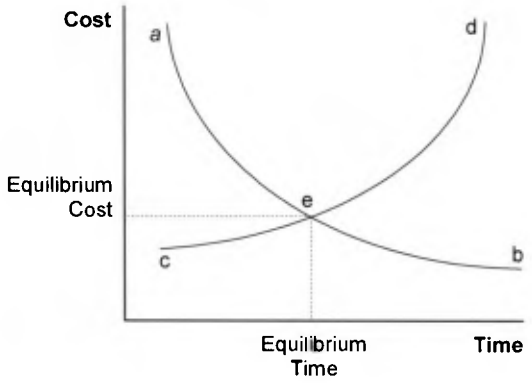


Figure 34: Demand and supply curves applied to study

Demand varies as the inverse relationship between the opportunity cost and the time involved, and the gradient of the curve indicates the relative elasticity of this demand. In this latter respect if the line (ab) is vertical it demonstrates inelastic demand meaning, in line with Brown and Saks (1985, p121), that minimum time is required for study and learning is instantaneous. Such demand can only apply to students with extensive background and prior knowledge and is exceptional. The majority will follow a more sloping line which, as the gradient reduces from near vertical to horizontal, indicates that more time will be needed for study due to content relevance, interest or difficulty of subject matter.

Other things being equal, a student's position on the demand curve will depend on the cost to them of the marginal utility of engaging in the activity. In the case of students arranging weddings the cost is not perceived to be as great as that for students misunderstanding the learning activities. As a result the wedding planners will be positioned towards (b) whereas the students struggling with the activities will be higher up the curve towards (a) as more time is lost in gaining the required understanding. These may only be temporary effects and in practice it can be anticipated that a student will move continually between positions on the curve as they perceive their demand to change. The gradient of the demand curve may also be anticipated to alter as the elasticity of their learning needs change, thereby reflecting the variation in slope of the 'S' shaped learning curve. In contrast supply represents the constraint imposed on the activity due to the commitment to other activities within the student's day. As illustrated in figure 34 supply varies with the anticipated return and, as with demand, the gradient reflects both the student's needs and that of the other individuals within their milieu. A shallow gradient indicates a more rapid increase in the release of time as the opportunity costs of reallocating time between activities increase; whereas a steeper gradient indicates only limited release of time irrespective of the opportunity costs. Thus, as more hours are allocated to study the opportunity cost of supplying each hour rises. For example, sacrificing time spent on domestic responsibilities might be enabled by hiring a cleaner so that more time is released for study but at a higher financial cost. Accepting this outlay may, however, be preferable to transferring additional domestic tasks to a family member who may resent this as a disbenefit so increasing the opportunity cost. The result is that decisions are made about how much time will be available for an activity based on the costs, and if the costs are too high then less time is available. Under stable conditions the intersection of the curves represents the equilibrium position where demand and supply are in balance. This may be regarded as the point around which the standard student is positioned as, other things being equal, individuals are assumed to adjust supply and demand to match the equilibrium values so satisfying their work-life-study balance. To illustrate this, the student profiled in appendix 11 recorded an average diary time of 20.2 hours for study against the overall average of 13.4 hours. Over successive questionnaires her weekly study time reduced to 15 hours and then to 12 hours placing her closer to the equilibrium time. However, for her last module she recorded only 3.5 hours demonstrating that all things are not equal as she had to travel more than anticipated for work and her mother passed away. Events such as these are infrequent, if not exceptional, but, as indicated in table

9, have a negative impact on study by increasing opportunity cost and reducing time. For the majority of standard students the critical factor is the extent to which stability of supply and demand, and consequent equilibrium, remains constant allowing them to establish and maintain a regular pattern of study. The example above demonstrates that in reality equilibrium will vary as individual events or wider changes in the environment have an impact on time use over which the student may only have little control.

As summarised in chapter 5 the findings indicate that students resort to a variety of mechanisms to maintain balanced study. Of these substitution is the classic in terms of economics and represents the ease with which time can be switched between activities. Substitution allows the student to maintain a position on the demand curve for study but this is generally reliant on others taking on extra responsibility. As has been noted earlier, there is an element of compulsion in respect of work that cannot be substituted so constraining time, particularly during the week unless employers reduce the opportunity cost by giving time off for study. Opportunity has also been identified as a mechanism but this tends to generate movement along the curves as a result of fortune rather than decision. As example the opportunity cost for a student who is more domesticated is less as they tend to be in the right place at the right time to study, and by the same token the opportunity cost for a part-time employee is less than that for a full-time worker who is hindered by the need to attend work. In the latter respect, unless flexible working is permitted, weekday constraints inevitably force more substitution at weekends, and this raises the issue of compatibility whereby the demands of other activities prevent the student trading off time. This is evident in the findings for students with families or an active social circle that have expectations for their attention. In this case the student is dependent on family and friends accepting their reduced commitment if they are to increase study time, and this willingness needs to be matched by the student. This depends on the strength of their engagement and the more highly engaged they are with the study the more inclined they are to negotiate the release of time. However, as table 9 shows, issues such as lack of relevance disengages the student pushing them up the demand curve as the opportunity cost rises. It is also clear that activities such as holidays are incompatible with study resulting in increased opportunity cost and reduced time unless contingencies such as using assignment extensions can be used to release time. The result of employing these mechanisms are mainly small corrections in the slope of the time budget line to overcome short term problems such as family illness or poor background knowledge. As described these adjustments cause movement up or down the respective demand or supply curve, however, events can occur that have a more radical and permanent effect. These tend to be due to the 'other factors' as opposed to fluctuations in the opportunity cost. Consequently figures 35a and b illustrate that major changes such as redundancy, more stringent employment terms, long-term illness or family break-up will cause shifts in the position of the curves as the relationship between demand and supply changes.

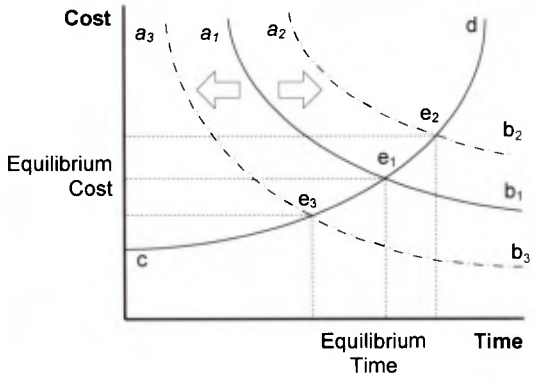


Figure 35a: Shift in demand

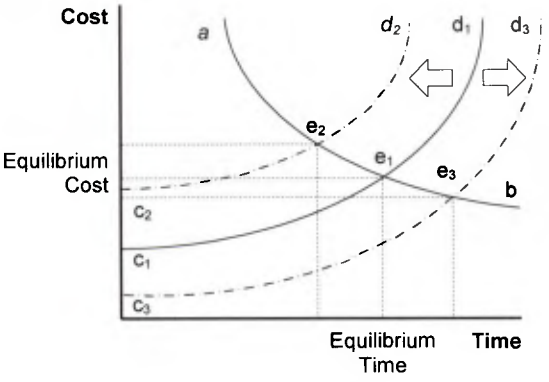


Figure 35b: Shift in supply

Taking the student giving up full-time employment, quoted previously on page 70, as example, he is likely to see the demand curve in figure 35a shift to the left, reflecting a reduction in the opportunity cost of the same amount of time. On the other hand the female student quoted on page 71 as working longer hours after moving from the public to private sector will see her demand curve move to the right as the opportunity cost increases due to the additional constraint. The same applies to the supply curve in figure 35b so that the female student quoted on page 110 as having to shoulder long-term care for a sick relative is likely to see the supply curve shift to the left as the time available reduces as the cost increases. In each case the equilibrium position alters requiring the student to re-evaluate the marginal utility of their commitments if they are to adjust their time allocations and return to a balanced lifestyle.

CHAPTER CONCLUSION

This chapter has examined the findings from an accounting, time management and economics perspective drawing on concepts from microeconomic and rational choice theory. For many students this was their first experience of distance learning, and of maintaining a study discipline over an extended period of time while working. It is clear that the strong career and work orientation of professional students keeps them focused on achieving the educational gain required. It is also apparent that these students adhere to their weekly patterns of time use, particularly those that are more fixed in routine. The indications are that students are forced to make continual adjustment to their time allocation as events cause their equilibrium position to move, however, no single time activity was found to be preferred over others. From the discussion it is apparent that diversity in time use is dependent on a complex set of relationships that can be summarised as:

1. the relative cost to the student of the time required for study;
2. the relative cost of alternative activities that may divert time away from study;
3. the student's preferences for different activities;
4. the ease with which one activity can be substituted with another;
5. the total amount of discretionary time the student has available, which is essentially around 6-7 hours per day after other constant times are deducted;

6. factors within the external environment that conflict, hinder or prevent study; and
7. the cooperation of family, friends, employer and others within their milieu.

What these and the discussion above again bring into focus is that each student engages in different activities to varying degrees depending on their circumstances and their preferences, but that these are continually being adjusted. Even though students may be indifferent to many of the factors that could influence their time use, they do assemble bundles of preferences for daily time activities around which they make their decisions. Accepting that these students are rational individuals, each will use these bundles as reference points but make their decisions based on satisfying their needs at the time they must make their choice. As illustrated in figure 36 maximum satisfaction occurs at the point where the student's budget line intersects with the bundle of preferences that best matches their need. This defines the optimum time for study and for other activities of that student.

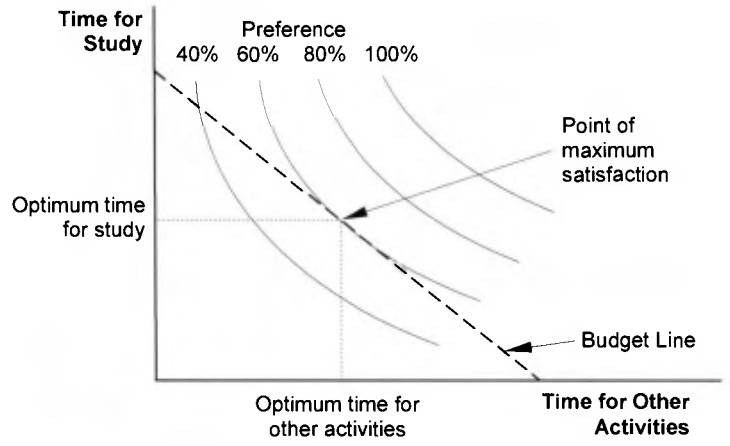


Figure 36: Optimum Time

The conclusion that can be drawn from this research is that 14 hours is the optimum study time. If this were based on the average diary time then this would be set higher at 18.5 hours in line with table 5. However, the need to set a lower value is indicated by the reducing trend shown in figure 14, and the disaggregated values in figure 24 that indicate a consistent time for students outside the range categories of 13-15 hours. The longitudinal study of students across the modules additionally shows an average study time of 14.7 hours over the extended period. The research has revealed that extremes in study exist that can be attributed to the part-time and flexible working arrangements of students. Allowing for these high study individuals suggests the need to reduce the optimum time, even though this may be contrary to the approximately 85% shown in figure 28 who agree or are neutral to 16.8 hours as the weekly study time. On the other hand, in support of a reduction is the protected time finding in figure 32 that indicates that the comfortable study time is around 10 hours per week. Taken on balance 14 hours study per week appears to represent a realistic optimum.

However, as this chapter has argued this is neither fixed for the individual or for the body of students as a whole. It is a position that the student aspires to achieve and maintain through continual adjustment of their time, in the same way that corrections must be made to keep a rifle

trained on a moving target. This analogy opens up the possibility for demand and supply to provide a more rational explanation for the diversity of times recorded by students in their diaries. If figures 35a and b are combined the diamond shaped zone shown in figure 37 can be outlined within which all time budgets can be anticipated to fluctuate due to the relationships itemised above. This representation is supported by the discussion in the previous chapters that suggests that the time use of the standard student lies within an outline rather than about a fixed point, and that the time use of the non-standard student lies at or beyond the boundaries of the outline. Small adjustments in time use cause movement up or down the respective curves within the zone whereas the shifts due to major changes define the boundaries.

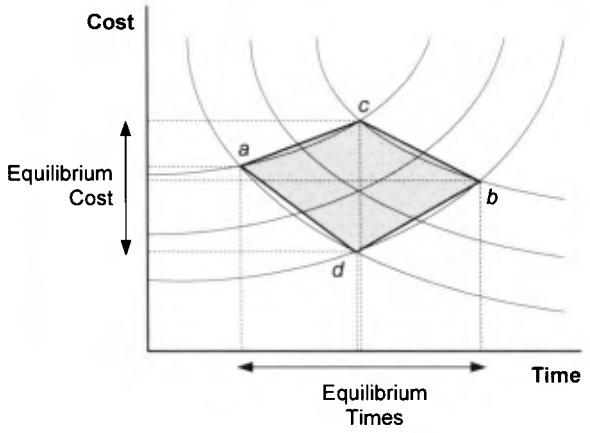


Figure 37: Temporal Zone

Representing the variation in time use as a temporal zone recognises that the volatility of daily life makes it is unrealistic to expect all students to fall within a narrow band of time. The discussion in this and earlier chapters has identified a number of time ranges in respect of study. In summary this has shown that most students can find around 2 hours per weekday and 4 hours per weekend day, and the results consistently indicate that the average weekly study time is around 14 hours per week. However, this is within a window that extends between 9 and 20 hours setting lower and upper thresholds beyond which students appear reluctant to go unless their circumstances offer lesser or greater opportunity. Consequently this may be taken to define the equilibrium time range. Within this the period of time that students are willing to protect study from other demands is between 9 and 11 hours, and the length of continuous study varies between 20 and 55 minutes per hour. Finally, the time they are prepared to give to VLE activities varies between 2 and 3½ hours, and admin activity may take up to 2½ hours of their week. Further ranges no doubt exist in respect of work and non-work related activities. Although time poverty was not evident, the pressures and demand for time increased as the course progressed and the unfamiliarity of the subject matter increased. The major effect was seen for periods of difficult study that raised opportunity costs, however unless exceptional circumstances existed, students appeared reluctant to make substantial changes to their standard times and the least worse options were chosen to create extra time. No common approach to creating time was evident although the preferred strategy involved inconveniencing the student personally in preference to family or employer, especially for overcoming short-term

crises. As a result it is harder to be as precise in respect of the range for opportunity costs but the values in table 9 suggest that these will vary by up to 60%. Factors in student's lives are as diverse as the students themselves making it impossible to define groups as this research has shown. The advantage in defining a temporal zone is that differences between groups or individuals no longer matter as optimum times and preferences are referenced to boundaries rather than to individuals. Irrespective of global location, employment or other circumstances the only difference that matters is between the 75% of students who can be regarded as standard and those who are non-standard. It is these non-standard students who present the greatest challenge for distance educators, but it cannot be assumed that these are mostly found within the non-UK students as the findings show that no expatriate group or nationality acts differently to UK students. A further challenge that is impending for educators is the effect on time of technology. The discussion earlier in this chapter has highlighted the great variability in use of technology to the extent that some students make very little use whereas others give it significant amounts of time. There is an implication in this for the shape and size of the temporal zone in figure 37 depending on whether any future change is displacement or efficiency as defined by Partridge (2005). Efficiency suggests replacement of activity to free up time which could lead to a contracting of the equilibrium time range. In contrast displacement has the potential to expand the range as more activities are completed using technology. This is an area that will need monitoring if realistic boundaries for the temporal zone are to be established.

Chapter 7

CONCLUSIONS ON TIME

"Time is the scarcest resource and unless it is managed nothing else can be managed."
(Peter F. Drucker)

The initiative for this research stemmed from two separate but linked notions. The first was the concept, expressed within the Bologna declaration, that an average student exists who allocates time in a similar way to all other students irrespective of mode of study. The second was the perception that the society within which distance learning is engaged has changed between the 20th and 21st centuries. Seeking to substantiate the veracity of these notions launched the three year journey that culminates in this chapter.

REVIEW OF OBJECTIVES AND MAJOR FINDINGS

Reflection on the literature indicates that much of the 20th century thinking about education in general, and distance education in particular, resulted from practices originating in previous centuries. However, this is changing with the greater use of technology and the perception of space and time compression creates an impression of change such that a re-examination of time-use within the distance education setting at the start of the 21st century is warranted. The potential for these changes to impact on College students provided the rational for the research and set the four specific objectives to be investigated.

The consequent *aim* for the research 'to establish whether it is feasible to define average time for study and what a realistic expectation of the time commitment for distance learning students should be' was explored within the findings. The discussion of the diary and questionnaire results demonstrate that, although there are average times, there is no average student. Each makes choices in how they spend their time, and this choice is dependent on preferences that reflect a melange of personal, workplace and social pressures. The proposition that emanates from the findings is that it is not realistic to define times for any particular daily activity, but rather to regard the majority of students as operating within a temporal zone that is inclusive of the range of times that account for their 24 hour day.

Objective 1 sought to identify whether an optimum weekly study time can be identified. The findings from the diaries and questionnaires demonstrate that most students will allocate time to study within a range of 9-20 hours per week. This includes time for VLE use and course admin that can be anticipated to range up to 3½ hours and 2½ hours respectively. The proposition that results is that 14 hours per week is a maximum for productive study, but that the optimum time that can be expected weekly over an extended period is closer to 9 hours. The findings indicate that around 75% of students will be found within these time ranges and should be regarded as standard rather than average. Students who fall outside these ranges are consequently non-

standard, however, only those found below the study range need give concern as those showing higher times generally have greater opportunity due to their work-life circumstances.

Objective 2 set out to determine whether a relationship exists between the main activities within a student's week that influence the time they give to their studies. The analysis demonstrated that no consistently strong relationships existed with the weakness in correlation highlighting the limitation of statistical techniques for human enquiry, and emphasising the need for techniques such as tempograms and disaggregate analysis. The findings do, however, yield evidence that the changes in lifestyle described in the literature are found amongst this sample of students, particularly in respect of changing workplace practices and work-life balance. The most profound change is found in respect of student's use of technology which occupies a significant proportion of their day either through work, leisure at home or on the move. Contrary to expectation this use of technology does not appear to compress time, but instead provides alternative avenues for socialising and for filling periods of otherwise redundant time. The findings do show that there is an age factor associated with technology use. Although social networking is the domain of the younger students, it is equally apparent that domesticity favours older students through greater opportunity for online activity within the home.

Objective 3 intended to establish how different groups of student may vary the time given to different activities. The initial anticipation that statistical methods would aid this enquiry was not realised, and, although this may be considered a limitation of techniques such as cluster analysis, it serves to reinforce the diversity of students. Disaggregate analysis does, however, provide evidence that certain broad groupings do exist that are defined by their preferences rather than hours. There are the young unattached students whose domestic constraints are minimal enabling higher social and leisure consumption, but whose financial constraints increase their work and travel times. They contrast with the older more experienced students who are more routine in their lifestyle, more domesticated and less constrained by financial decisions. These students may or may not have dependent children. If they do then the findings indicate they are working longer and more unsocial hours to support their family. Each of these groupings experience different time pressures especially if they are working full-time. A further group of students are those who work part-time or within the public sector, and have the advantage of greater discretionary time in which to plan their studies. They may be grouped with self-employed students, however, despite these students having greater discretion over how they use their time they are constrained by the constant pressure to earn.

Objective 4 sought to establish whether international student time use differs from UK ones. The conclusions that can be drawn are less concrete due to the limited number of students who participated in the study, and the fact that a significant proportion were British expatriates. The indications from the findings are that non-UK students experience similar pressures on time to UK ones but are subject to additional constraints due to working hours, language and culture. Differences in both cultural and business lifestyle were perceptible with non-UK students resting less, working more and enjoying a shorter time for non-work activity overall. Non-UK students of both sexes spent more time in social activity with females taking more than males. Non-UK

females also took more leisure time and this appears to impact negatively on study time. In respect of technology, younger non-UK students gave more time to the Internet and VLE and recorded less time in study than their UK counterparts. Despite these differences there is no evidence that non-UK students can be regarded as non-standard.

CONTRIBUTION TO THEORY

The contribution of this research to theory has both a conceptual and practical base. In respect of the former it has not sought to arrive at solid concrete answers as the research verifies that when a holistic view is taken of a working student's time the outcome is highly diverse and without commonality. This is attributable to differences in human behaviour and it may be presumed that little research on time has been undertaken within the distance education sector for this reason. The literature shows that when this has been undertaken it has focused on specific aspects associated with the study and learning process, and that, when other activity has been included, its selection has been based on its potential to divert time from study. This is realistic if all other things are equal, however, as this research shows this is not the case, but dealing with this inequality appears to dissuade further enquiry. Consequently this work offers not only a set of results that reflect on the complex relationships between different activities that consume time but also a framework within which time can be better understood.

The thesis has identified that the economic concept of substitution can be extended to reflect the alternative mechanisms that may draw a student to, or away from, study. These may be bound up with imperatives, cultural expectations or social norms that result in decisions about time allocation being based on compulsion or conformity. They may be dependent on lifestyle such that decisions are based on the compatibility of study with other commitments, or the opportunities (or hindrances) presented by everyday living. They may be based on the attractiveness of the study for personal or career development that generates sustained engagement or disengagement if the study lacks relevance. The findings also reveal that, whilst there may be positive and negative factors that influence their decisions, students are largely indifferent in their choices with no strong feelings either way.

The discussion in chapter 6 uses economic concepts to develop a reasoned explanation for student diversity, and postulates that ranges of time are more realistic than average times. The development of the temporal zone concept illustrates that parameters can be established within which the preferences of the majority of students can be accommodated. At this juncture the temporal zone can only be regarded as conceptual as more detailed research into the range of opportunity costs that influence its shape is required. It could not, however, have been developed without the disaggregate analysis that established the multiple variations in a student's life. The disaggregate technique developed for this research from time use practices demonstrates its power as a tool to extend the analysis available for diary based studies when combined with questionnaires. By introducing more detailed reasoning based around economic theory this thesis has shown that exploring time for study is not simply a numerical exercise.

The accounting approach that underpins the models developed by Burt and Lloyd (2005), Carroll (1963), and Ralph (2004) is not devalued by the conclusions reached here. What this thesis does is to emphasise that zero sum calculations have limited meaning unless they reflect the wider environment and take account of the student's personal assessment of the costs and benefits of weekly study.

At the practical level the research demonstrates that diaries are an effective instrument for investigating distance learners' daily behaviour and avoid the problems of recall accuracy for which post-event questionnaires are criticised. The evidence is that the ten activity codes used were sufficient, and that sub-dividing study activity into three codes was appropriate. Enabling three entries per one hour slot limited the minimum episode duration to 20 minutes and, although too long for certain activities such as a five minute walk, it was appropriate within the coarse granularity adopted. Despite reservations that the timing of the diary recording might be too soon and biased by students' initial enthusiasm, the longitudinal study showed only small variation in time use over the period indicating that the early diary week was representative of the full course period.

The individuality and autonomy of the professional student is a theme that runs through this thesis. In terms of motivation and engagement it is clear that the link between study and a qualification offering both career and financial reward is the over-riding incentive for students to sacrifice preferred uses of time to study. In this regard, the students considered here may not be typical of the wider body of distance learners who may study for pleasure or personal satisfaction but they can be regarded as similar to the greater body of working adults. The proposition that the total study commitment lies within a range of 9-20 hours is not new but the findings do provide a revised interpretation for how this time may be sub-divided to take account of technology supported components. There is confirmation that the time required for admin tasks occupies a proportion of the total, as does time for VLE activity, and that these equate to approximately 12.5% and 17.5% respectively. By deduction this sets 70% as the proportion of the total time to which non-technology supported study should be limited.

These proportions appear realistic for distance study structured around significant VLE participation by working adults. Although the proportions could be expressed as a ratio to differentiate the time allocated between admin : VLE : study this does not appear to be a viable proposition without further research both in relation to the model of teaching considered here and other teaching strategies. What this research does emphasise is that specific consideration needs to be given to the time commitment implied within study designs for administrative tasks and VLE or other technology related use. How the student will study and the impact that this may have on their overall academic learning time (Ralph, 2004), and hence their learning gain (Burt, 2000), must be a primary concern for the designers of distance study.

REVIEW OF RESEARCH STRATEGY

The purpose for this research was to understand the issues, pressures and influences on the time use of working students. The experience from analysing and evaluating a wide collection of data justified the inductive approach adopted as each set of results and findings influenced the subsequent investigations. In this respect, the diaries provided a clear picture of student activity and the 77% return rate demonstrated that linking their completion to specific learning activities and assignments is key to their success. Without doubt the research benefited from the inclusion of the questionnaires enabling the investigation of 'systematic association' (Gershuny, 2000, p267) through both the aggregated and, especially, the disaggregated analysis. Although the strategy did not deliver precise answers it recognised that 'the interconnections between different human characteristics are important for understanding students holistically i.e. to see students as complete and complex entities whose wholeness is more than the sum of their particular characteristics' (Evans, 1994, p124). Overall the combined methodology permitted a level of synergy to be achieved that yielded a more informative outcome. Within the constraints of an inductive approach the outcomes of the research appear valid, however, it would be unsafe to claim full reliability due to the vagaries of human behaviour. In terms of accuracy, the checks and balances built into the research revealed that students generally offered honest answers that cross checked between their diary and questionnaires.

LIMITATIONS OF THE RESEARCH

A significant limitation of this research stemmed from the need to diverge from the anticipated accounting evaluation of the findings which resulted in exploring these from an economics perspective. The need for this prior to commencing the surveys could have been better recognised from the literature, however, this was not immediately apparent due to the limited amount of published material. In consequence more detailed data relating to cost and benefit factors were omitted from the collection stage. Although this recognition would have resulted in the questionnaires being framed differently sufficient data was collected to provide answers to the aims and objectives but not in as finite terms as might have been preferred. Additionally, the initial research design expected to make greater use of statistical techniques to group and explain the findings. Once these had proved to have limited application the research was forced to adopt alternative techniques for analysis and explanation. Adapting and using time use methods in fact provided more powerful tools for analysis so added, rather than detracted, from the original research plan. Diary method produces 'reductions of the sum of conscious experience' (Gershuny, 2000, p266) that is dependent on the granularity of coding. In this respect, other time use studies have used a finer granularity so that domestic time could have been recorded as shopping, cleaning etc. Within a social research context this would have been appropriate, however, such fine detail was not judged necessary for this research as its purpose was to understand the extent to which daily activities diverted time from learning. In hindsight,

the research could have benefited from a finer granularity in respect of certain activities, such as travel, and from improved clarity in differentiating between social and leisure activities and between study and VLE times.

It can be questioned whether a one week diary was 'sufficiently reliable' (Nonis et al., 2006), however, the evidence from this research is that, despite their relative unfamiliarity with distance study, students engaged well with the diary as it occurred within an information focused module, and they had incentive to complete it. The reasoning for choosing the particular week for the diary recording has been set out in chapter 3, however, it must be acknowledged that the potential for dates to clash, for instance with the Chinese New Year (7th February in 2008), was not considered. Although the number of students potentially affected were small in comparison with other students internationally this may have influenced the number and quality of diary responses from the Far and Middle East. The recording period itself could have been increased in duration, or further weeks introduced later in the course, as suggested by Kember and Leung (1998), to allow for early idiosyncratic behaviour. The judgement made was that asking students to repeat an exercise for which there was no incentive would not be attractive and risked conditioning and sample bias. Instead the follow-up longitudinal questionnaires proved sufficient to provide answers on how students' time use changed but even these saw reducing engagement with the initial sample number of 62 falling to 26 over the three questionnaires. In retrospect, the initial sample size for the longitudinal survey of 28% of returned diaries should have been larger, and for future studies at least 40% would be more appropriate. Although the reducing participation found in the longitudinal survey tends to support the decision not to repeat the diary week later in the study period this could be a worthwhile option for future studies if sufficient justification can be offered to students that captures their engagement.

The fact that a high proportion of the original longitudinal sample chose not to continue responding to the questionnaires does represent a further potential limitation within the research. There is no evidence that these students held any special significance in terms of being non-standard or exhibiting extreme time use allocations. The possibility of contacting them to further investigate their reasons for not participating was considered, however, a conversation with one student, during which she apologised that she did not have time to complete the questionnaires on top of the main studies, suggested that this may not be expedient. In this regard note was taken of the experience from the Institution Focused Study that returning to students after they had ceased to engage was likely to be unfruitful. It must, however, be acknowledged that an opportunity to gain greater insight into time pressures and trends was missed through not conducting follow-up interviews to complement the questionnaire responses.

Within a study of this kind there is a potential limitation in respect of the rates of response to the diary and questionnaires. Cohen et al. (2000, p262) suggest that educational researchers should be satisfied with a 50% response rate to questionnaires. Taking this as a benchmark the responses to the questionnaires summarised in appendices 13 and 14 show that these varied between 46% and 90%, with the phase 1 pre-course questionnaire recording a 73.5% response

rate and the post-IMC questionnaire a 66.0% rate. Reference has already been made above to the relatively small number of students participating in the phase 2 longitudinal surveys but nevertheless the response rates varied between 66.1% and 90.0%. The diary itself recorded a return rate of 77.2%. Whilst these rates are respectable three points must be acknowledged. The first is that the same students did not complete each of the survey instruments. Consequently the number of students who completed the pre-course questionnaire, the diary and the post-IMC questionnaire was 221 representing 47% of the full IMC enrolment. This does raise the second point of whether the findings would have been substantially different if the remaining 53% contributed. In fact this limitation mainly applies to the disaggregated results in chapter 5. Even so there is potential for the relationships discovered in chapter 5, and the results generally, to be influenced by the non-respondents. However, as was noted in chapter 3, the inductive approach adopted for this research has not intended to present concrete generalisations, rather to establish propositions based on the findings.

The non-response rates indicated above point to a third potential limitation within the data collection. It is conceivable that students not responding were put off by the number of questions and the wording used in the questionnaires. Ideally each questionnaire would have been piloted with a group of students rather than members of the academic team. The fact that this did not occur resulted largely from the time constraints of the inductive approach that meant that each questionnaire followed up on previous results. With modules completing every 6-8 weeks the distribution, collection and analysis of each questionnaire left minimal time to trial questions with remote students before they were issued. For future studies of this kind the interval between questionnaires needs to be given sufficient thought to ensure that the design, testing, distribution, analysis and development can be completed in full. It would also be beneficial to establish a bank of students available to pilot surveys or form focus groups.

The inclusion of a pilot with a focus group may have helped to resolve a further potential limitation within this research. One reason, noted in chapter 3, for selecting the IMC module was the fact that each activity had been rated for the amount of time it was likely to take students to complete. Each activity component was time assessed using the rules of thumb advocated by Chambers (1992) and Whalley (1982) in the case of the text, video and audio materials. For the online components an estimate was based on the number of anticipated contributions to the discussion forums and the likely time that a student would spend in web searches. As illustrated in appendix 1 the anticipated time required to complete the activity (including workplace investigation, reference to resources etc) was shown beneath the instructions together with the recommended earliest start and latest completion week. The potential limitation that must be acknowledged is that the time estimate was made by the module leader without reference to the experience of students. Consequently the potential for a difference of opinion between what constitutes easy, hard or difficult study exists that could influence the time advised or expected. In this respect readability can be an issue, however, in the case of the College's text materials its editors check and amend each paper before it is issued to students. Although this ensures

that each is accessible the relative complexity of the content will vary between students adding further weight to their involvement in future time assessment.

The final limitations within this thesis relate to the students and the accuracy of their responses to the diary and questionnaires. Chambers (1992) identifies that students 'may well feel under some pressure to say when asked that they have worked what they imagine their teachers will regard as respectable hours, and so present a rather creative account of it'. The potential for answers to be given that are deemed to be socially acceptable, i.e. fit what may be considered to be normal, or to conceal what may be deemed to be unacceptable deficiencies in the student's ability to study is a recurring problem in questionnaire surveys. This was recognised for this research and an 'honesty box' was included in the diary, shown in appendix 4, that allowed the student to declare the accuracy of their daily times. This still opened up the potential for creative responses, however, comparison of the VLE times with the Blackboard access data indicated that these were representative if not highly accurate. From this it can be inferred that students' responses were mostly honest but the potential for students to provide answers that matched course expectations or maintained their self-esteem cannot be ruled out. It may further be inferred that a proportion of students who did not submit a diary or questionnaire withheld these in the knowledge that their answers would not be accurate. Follow up interviews, as described earlier, could have established the veracity of this so their exclusion does represent a limitation within this thesis.

CONTRIBUTION TO KNOWLEDGE AND FUTURE PRACTICE

This research has focused on students working towards chartered professional status. It presents a fresh view of the issues and pressures that face such distance learners in their daily life, and consequently provides improved understanding of their needs, especially at commencement of study. For these students, developing their human capital is paramount and provides powerful motivation to maintain engagement. This continues even if study results in failure or deferral as shown by the high reclamation rates in the IFS (McNeill, 2007). Work is their priority activity and presents the severest constraint on time, however, this is not consistent as shown by the self-employed and full-time private sector employees when contrasted with part-time employees and those in the public sector. Prior knowledge is a critical factor for accelerating professional studies and directly influences the time the student requires. Generally they exhibit a pragmatic approach to learning activities and will do what is necessary to complete their course. Although the findings show that study dissatisfaction increases with time pressures, caution must be exercised as students failing to complete learning activities demonstrate Weiner's 1972 attribution theory and blame this on factors outside their control, and on time in particular. This may be regarded as a symptom of time compression, however, there is little evidence that the students considered here were subject to greater space and time pressures than those from a decade ago. In fact they may be considered to be less time

pressured within the workplace as working hours generally appear to have reduced, but at the same time use of technology has increased.

The increase in technology is the greatest single difference but there is no firm evidence that supports either an efficiency or displacement theory. Indeed, the fact that younger students recorded less social time as social networking and online activity increased may suggest displacement, but this may equally be regarded as efficiency for expatriates and non-UK students. Overall students are positively disposed to technology for study and especially for mobile study. In the latter respect a significant and unexpected finding was the extent of travel by these students during the working day. Coming, in some cases, on top of lengthy commutes it is understandable that many expressed dissatisfaction with the 'dead' time experienced. It may be perceived that the nature of real estate and construction practice makes a particular demand for work journeys, however, many more sectors of professional life, such healthcare, security and sales, require frequent work-time travel. Consequently a recommendation from this research is that increased attention be given to the design and provision of mobile learning that utilises the latest technologies to free up periods of forced inactivity. The strength of disposition towards technology does vary with age and students do appear to place a ceiling on the length of time they are prepared to use technology. Although further investigation is advisable the findings indicate that online participation should be designed to take no longer than 20-30 minutes, web searches should take less than one hour and 2-3 minutes should be allowed for each quiz question. In respect of the non-technology activities, the rules of thumb advocated by Chambers appear to be supported. Investigating workload was only a secondary aspect for this research but it has highlighted that maintaining a focus on teaching and production time to the exclusion of learning and consumption only prolongs adherence to the notion of average students and average times. Until a more sophisticated definition of study and time within the context of a diverse student body is accepted, this is set to continue.

This need to dispense with averages is reinforced by the inability to find common groupings, and this raises questions as to the value of the average times presented. It is pointless to disregard these as they provide a benchmark against which a range of time may be constructed to accommodate the majority of standard students. However, the analysis of the diary times show that there are extremes of high and low times making the time use of the non-standard student important if their needs are to be satisfied. The findings suggest that this non-standard status results from a combination of personal and lifestyle constraints, cultural differences and poor time management. Students who appear most prone to fitting the non-standard description include the younger, less experienced ones, particularly if they enjoy a non-stop social life; those with young families; those working in highly pressurised jobs; those whose background knowledge or study skills may be limited; and students studying in a second language, either in their own country or as an expatriate. These may individually or collectively force them into extreme positions in respect of their time use that may impact negatively on their studies. The recommendation from this research is that specific attention is given to these students to help them successfully manage their time and complete their course. In respect of time management

the findings stress the need for detailed guidance but that this should not be limited to statements of principle. Specific induction should require the new student to analyse their week and to identify blocks of protected time that both they, and others, are comfortable with, and which can be sustained over a period of months. Through induction students should be advised what the minimum time requirement is for their course, and this should be demonstrable and reinforced throughout each stage of study. If a minimum requirement, such as the 9-10 hours per week that this research indicates, cannot be delivered due to the non-standard status of the student then they need to be advised either of remedial measures that they can take to release the minimum time or of the alternative study options within or outwith the course they have enrolled for.

The research does prompt questions over whether an industrialised approach to distance education is appropriate for the 21st century. The variability in the students considered here, both in terms of their time and their activity, highlights that a one-coat-fits-all single commodity designed for a pile high, sell cheap strategy is no longer realistic within an individualised, global and virtual world. If an objective for developing and advancing practice in distance learning is for it to be more inclusive then students at the extremes of the temporal zone must be accommodated. Unless this is achieved the alternative outcomes suggested by the temporal boundaries are that students continue to drop out due to unmanageable academic pressures or time poverty instead of gaining the academic satisfaction or ability to use their time in a discretionary way. Achieving inclusivity means maximising the educational utility by assisting students to consciously rationalise their time allocation within the constant and flexible activities that constrain study opportunity. The indication from this research is that to accommodate this diversity of preferences requires a more flexible approach to the design and delivery of study components. This must extend beyond managing volumes and 'chunking' of learning and look to the structure of weekly study design that gives greater attention to mobility, activities and media. Study time should be considered as a range of weekly time with activity broken down to accommodate both slower students whose language, study skills and background knowledge are weak, and more advanced and capable students who can cover more in their available time. The study episodes indicate that each block of study should ideally take no more than 1½-2 hours to complete. In this regard, it may be concluded that it is better to fit workload to the available time and devise layers of study in a 'concertina' style that can progressively be expanded. At the base threshold level the essential 'need to know' study should be able to be completed in 10 hours per week. This would make it sufficiently challenging for all but not outside the reach of the majority of students globally. In this respect, if the evidence from Garg et al. (1992) is correct that second language learners study at 60% of the speed for English speakers this suggests that it would take over 16 hours to complete the equivalent of 10 hours of study. Within an upper threshold of 20 hours this is feasible, but only if less essential study can be sacrificed. Therefore, the 'nice to know' study should be positioned to allow students who have the benefit of more time, and background subject knowledge, to undertake further study that extends the essentials. This supplementary study should be explicitly explained and

should account for 4 hours taking the overall study time up to 14 hours. On top of this should be online time accounting for up to 4 hours with a further 1-2 hours allocated for admin. These times should be regarded as guides but dividing the time into manageable layers would allow the standard student with more discretionary time to use the full 18-20 hours. In contrast the non-standard student, who may share similar time pressures with the second language student, would achieve a realistic if not comprehensive level of study. This may be considered ethically questionable but the argument in its favour is that in a global information rich world it is no longer necessary to teach every student everything they need to know. From a provider perspective such flexibility may be deemed more difficult to manage, but will be necessary if the efficiency of learning is to be maintained as lifestyles, technology and preferences change.

This recommendation for flexibility brings into focus the general provisions of academic practice such as those set out in the Bologna framework. If an average distance learning student in employment does not exist due to the diversity found within the body of students it can be questioned whether a standardised approach can be taken to course definition. At the heart of this is whether 10 hours of study per credit point provides a realistic means of evaluating learning effort. Should this 10 hours represent the total time including study, online activity and administration, as well as the experiential learning available to working student such as those considered here? Or should the credits be attached exclusively to the actual study time, the ALT as defined by Ralph (2004)? If the argument presented here is accepted that non-standard students exist then should a credit point account for more than 10 hours in their case due to the greater time pressures that delay their learning? No conclusion on this is offered here but the findings suggest that a more detailed debate over time in relation to study effort and average students is warranted.

DISSEMINATION AND FUTURE RESEARCH OPPORTUNITIES

Time is an important aspect of practice and initial findings from this research have been presented at European and International conferences and have formed the basis for a journal article. The conclusions and continued research will form the basis for further papers and articles within both the distance education and time use community.

In conducting this research a wealth of data was collected to satisfy the aim and objectives. Within this thesis it has not been feasible to examine every nuance within the findings so there is opportunity to drill down further. The research has also identified areas where new research can be undertaken, such as to look more closely at learning styles and time; and as identified above, the extreme times revealed by the disaggregate analysis warrant further investigation. Although this research has focused on working professionals, it is apparent that almost all the issues faced by them apply equally to students following other modes of study. Therefore, there is opportunity for the time use of full-time and part-time students to be reassessed as both now include individuals who work for significant portions of their week. The research for chapter 6 showed that time and time use is largely ignored by economists other than in a household

consumption sense. Although Burt in particular has related study and time to economic principles there is opportunity for a more detailed investigation of opportunity costs and time to be undertaken to provide more concrete parameters for the temporal zone.

Given that the average student does not exist, an implication of this research is that the mechanics by which study materials are evaluated and time rated for use by a diversity of students must be re-examined to establish whether the established rules of thumb are still sufficient to accommodate the techno-learner. In this regard, the evidence from this research suggests that there is far more to be learned about e-time and student's participation and engagement in online learning activities. Further research in this area would serve to confirm or modify the proportion of VLE time proposed within this thesis. It is clear that there is still considerable research to be undertaken in respect of the technology itself, and a further area requiring investigation is the use of mobile technologies and the design parameters for harnessing short blocks of travel time.

FINAL WORDS

The main conclusion from this research is that an average distance learning student in employment does not exist, and that referring to a standard student offers a more realistic and flexible definition. This flexibility has implications for the construct of distance study packages if both standard students and those at the periphery of the temporal zone are to be accommodated. The research has highlighted that the increased use of technology represents the most significant change between the centuries and harnessing this is the critical area for future research and practice. This requires smarter thinking, smarter products and smarter practice within a managed environment. In a fast changing world where the expectation for greater use of cloud computing, web 2.0+, mobile apps, games and other, as yet unknown, opportunities take the stage to supplement and enhance conventional texts, the pressures on time for study will continue to increase. The only certainty is that there will still only be 24 hours in a day.

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APPENDICES

APPENDIX 1: Relevant IMC Learning Activities and Assignment

LEARNING ACTIVITY GUIDE

Module: **INFORMATION MANAGEMENT AND CONTROL** | Code: **K101IMC**

This module commences on: **28 January 2008** | Module Tutor: **BILL McNEILL**

This guide provides details of the learning activities for this module and schedules when these should be completed. You may complete these ahead of time, however, you should make every effort not to fall behind programme otherwise your later studies may be affected.

Each activity is described on the following pages. You should look through these before commencing study of this module and look ahead to forthcoming activities as you progress to plan when and where you will complete each activity.

You are reminded that the assignments must be completed and submitted to the College by the due dates indicated to avoid forfeiting 10 marks. You may request an extension of up to seven days by applying online through the VLE before the assignment due date.

		Learning Activity	Time (Hours)	Commences (Week No)	Complete By (Week or Date)
1.		Getting Started	½	1	1
2.		Pre-Test Quiz	1	1	1
THEME 1: THE NATURE OF KNOWLEDGE AND MANAGEMENT					
3.	1.1	Activity: Ice breaker	½	1	2
4.	1.2	Quiz: Knowledge and its representation	2	1	1
5.	1.3	Activity: How do you know?	1	1	1
6.	1.4	Case study: A Pig in a Poke	3	1	1
7.	1.5	Quiz: Communication in practice	2	1	1
THEME 2: WORKING WITH INFORMATION AND DATA					
8.	2.1	Quiz: How to find it	3	1	1
9.	2.2	Activity: Time Survey	2	1	3
10.	2.3	Activity: Surfing the web	1	2	2
11.	2.4	Activity: Knowledge Management research	3	2	2
12.	2.5	Quiz: Beta Build Rail	3	2	2
13.	2.6	Activity: Love Lane boundary	3	2	2
14.	2.7	Quiz: Englefield Estate	3	2	2
15.	2.8	Activity: I'm right You're wrong	3	3	3
16.	2.9	Quiz: Measurement Practice	1	3	3
17.		***Assignment 1***	9	***18 February 2008***	
18.	2.10	Case study: Mighty Mouldings Ltd	4	4	4
19.	2.11	Activity: Where Have You Put It?	1	4	4
20.	2.12	Quiz: Making Decisions	1	4	4
21.	2.13	Simulation: Property and Population Survey	4	4	4
22.	2.14	Activity: Time Survey Results	4	4	4
THEME 3: MANAGING KNOWLEDGE AND INFORMATION					
23.	3.1	Case study: North Berks District Council	4	5	5
24.	3.2	Activity: What Do They Do?	2	5	5
25.	3.3	Quiz: Crystal Balls	1	5	5
26.	3.4	Case study: Zeta-PM Group	4	5	5
27.	3.5	Quiz: Taking Control	1	5	5
28.	3.6	Activity: Where's the Strategy?	2	5	5
29.	3.7	Quiz: A systematic approach	1	6	6
30.		Post-Test Quiz	1	6	6
31.		***Assignment 2***	12	***10 March 2008***	

Activities included within the research

Module: **INFORMATION MANAGEMENT AND CONTROL**	Code: **K101IMC**

Activity Title: **Activity 2.2: Time Survey**

Activity Preamble: Through this activity you will explore your use of time. You will do this by recording the time that you spend on different activities at home, at work and within this course. Later you will analyse the information you have collected and present a summary of the information with your assignment 2.

You will find it helpful to refer to the reference papers on *Management and the Role of Managers, Statistical Presentation* and *Interpretation of Statistics* in completing this activity.

The information that you collect and submit will contribute data to research being conducted into student use of time. The research has been explained in the letter sent with your study materials at the start of this course.

Instructions

Cheryl Watkins is the new human resources manager for ALZ, a large firm of surveyors. One of her first tasks on taking up the post is to develop a work - life policy. As she has little experience of working with professional surveyors she decides that her first step must be to find out more about staff use of time.

As she does not have the detailed understanding of surveying she decides to conduct some research of ALZ trainee staff. She decides that the data she needs to collect are:

- Resting
- Domestic
- Social
- Internet
- Leisure
- GDP Study
- GDP Admin
- GDP VLE
- Work
- Travel

This information she believes will allow her to draw conclusions about how trainee staff use their time and form the basis for her draft policy. She decides that the best way to record the information she needs is to ask staff to keep a diary. She prepares a spreadsheet for staff to enter codes for the different activities that they are engaged in during a day.

1. Download the Excel Workbook titled 'Time Survey' from the resources area on the VLE and save to your computer.
2. Using the codes shown enter the appropriate code to reflect your main activity for each block of time indicated in the 'Diary' spreadsheet during the 24 hour period starting at midnight on Monday 4th February.
3. Repeat this for each of the next 6 days ending at midnight on Sunday 10th February.
4. For each activity scheduled for this week (2.3 – 2.7) record the time that you spend in the appropriate box at the bottom of the 'Diary' spreadsheet.
5. Enter the data requested as accurately as you can.

This activity will run for one week.
You will need this data for activity 2.14 and draw on the results for the second assignment

Learning Activity Number: **9**	Anticipated time (hours) required to complete the activity (including workplace investigation, reference to resources etc)	**2 hours**
Earliest Start Date: **Week 1**	Latest Completion Date: **Week 3**	

Module: **INFORMATION MANAGEMENT AND CONTROL**	Code: **K101IMC**

Activity Title: **Activity 2.3: Surfing the Web**

Activity Preamble: You may be a complete novice at surfing the web or consider yourself highly experienced and competent.

- If you are the former you are missing the opportunity to access the mass of information that is now available in 'cyberspace'.
- If you are the latter you will know all about the vastness of the information available but can you judge which information is worth having and which is best ignored?

This activity aims to make sure that you are all able to connect to the Internet, conduct information searches using various search engines and to form a judgement about the information returned by them.

Instructions

For this activity it is assumed that, as well as your Internet connection and ISP, you have a web browser loaded on your computer. This may be Microsoft Internet Explorer, Netscape or another package.

Note that some employers are very sensitive about employees surfing the web at work. You should check with your manager or supervisor first if you think you may breach any rules and obtain the necessary permission.

1. Run your web browser and connect to the Internet.
2. Every page of information on the web has a unique URL (Uniform Resource Locator) which keeps it distinct in a world of electronic pages. In the Address or Location text box on your browser home page type in the URL for the Yahoo search engine [URL: www.yahoo.com]. This will take you to the Yahoo home page.
3. In the search text box type in "Global Warming" and click Search (or Go or Start) to run the search. How many web site links does this return?
4. Now look closely at the link entries found by the search. What information about the link does the search engine provide? Does it tell you about:
   - the contents of the web page(s) linked to?
   - the closeness of the entry to your search term?
   - the URL for the providing web site?
   - the date that the information was posted to the web?
5. How useful do you think the information provided by the search engine is in directing you to the information you need?
6. Now have a look at some other search engines and use each to search for the term global warming. Try:
   www.looksmart.com www.excite.com
   www.lycos.com www.google.com
7. How does the information about the returned links vary between different search engines? Do the same links appear on the first or second pages returned by the search?
8. For detailed advice about conducting web searches now connect to: http://www.lib.monash.edu.au/vl/www/wwwcon.htm.
9. You can also try using the advanced options available with some search engines to refine searches and more closely target information.

Please Note: You will be required to submit a breakdown of the time you spend on this activity with the spreadsheet for assignment 2, as explained in activity 2.2.

Learning Activity Number: **10**	Anticipated time (hours) required to complete the activity (including workplace investigation, reference to resources etc) **1 hour**
Earliest Start Date: **Week 2**	Latest Completion Date: **Week 2**

Module: **INFORMATION MANAGEMENT AND CONTROL**	Code: **K101IMC**
Activity Title: **Activity 2.4: Global Warming Research**	
Activity Preamble: This activity continues on from the previous one and considers not only the process by which we can find information on the Internet but also the quality of the information that we find there.	

Instructions

George and Harold share an office. During a lunch break George puts down the paper he is reading, turns to Harold and announces 'It says in here that a couple of guys have just built a square house with a window in each wall'. 'What's unusual about that?' replies Harold. 'Its odd because all the windows face North' reads George. 'Don't be stupid!!' retorts Harold.

Of course Harold is right or is he? Our natural instinct is to say that it is impossible to have all the windows of a house facing in a northerly direction - unless of course the house happens to be built on top of the south pole in which case every window must look northwards! This example of lateral thinking illustrates the way it is easy to accept or reject information because it does, or does not, fit with our perceptions of what is right or normal. It illustrates why we should question the quality of information and understand how quality information can be recognised or discarded - particularly web information.

*Before commencing this activity you might spend a few moments considering what is meant by '**quality**'. For some it can mean a* **standard of excellence or superiority** *and for others* **fit for purpose**. *What does it mean to you?*

1. Some scientists are convinced that global warming is not actually happening. You have to use the World Wide Web to discover if it is.
2. Connect to the Internet and run your (now favoured) search engine. Run a search for *Global Warming* or associated term.
3. Follow the links to the first 20 web sites that your search returns. At each site consider the information that it provides about global warming. Ask yourself: "*Is the information of sufficient quality to persuade me that it carries authority - in other words that it is unquestionably believable?"*
4. As you move from link to link compile a list of attributes (ie properties or features of the web site and/or its information) that you consider influence your feelings about the quality of what you read. These attributes may include things that are present and things that are not but should be.
5. Go to the forum for this activity in your tutor group and post a message giving:
   - a sentence or two describing the attributes that you consider are important to look for in a web site that provides quality information.
   - the URL for the web site that you consider gives the best quality information describing global warming.
6. Return to the VLE at intervals and compare your attributes / URL with those of other students. Do you agree on the attributes and is global warming happening?

Please Note: You will be required to submit a breakdown of the time you spend on this activity with the spreadsheet for assignment 2, as explained in activity 2.2.

Learning Activity Number: **11**	Anticipated time (hours) required to complete the activity (including workplace investigation, reference to resources etc) **3 hours**
Earliest Start Date: **Week 2**	Latest Completion Date: **Week 2**

Module: **INFORMATION MANAGEMENT AND CONTROL**	Code: **K101IMC**
Activity Title: **Activity 2.5: Quiz: Beta Build Rail**	
Activity Preamble: This activity aims to help you recognise the types of business information that are generally required in respect of marketing, finance, human resources and operations. The case study examines the ways in which technology can be used to solve problems related to these key business functions. The reference papers on *Management and the Role of Managers* and *Product Development* will be needed in completing this activity. Tuesday in the set text will also provide a useful context for your considerations.	

Instructions

1. Read the 'Beta Build Rail' Case Study.
2. The case study describes the design and implementation of an information system to solve a problem at the heart of a company's problems.
3. Analyse the case study and compare the process by which the IRCoMS system is developed with the stages that a product such as a new office development goes through. Where are there similarities?
4. At the same time consider the role of the marketing, finance, operations and human resources functions both in creating the problem and then in its solution.
5. When you have clarified your thinking on these issues complete the quiz.
6. Run the BETA BUILD RAIL QUIZ by clicking on the appropriate link on the CD-ROM. Answer each question in turn and submit your completed test. You will receive an overall mark for the test and general guidance on what this indicates your understanding of the issues to be.

Please Note: You will be required to submit a breakdown of the time you spend on this activity with the spreadsheet for assignment 2, as explained in activity 2.2.

Learning Activity Number: **12**	Anticipated time (hours) required to complete the activity (including workplace investigation, reference to resources etc) **3 hours**
Earliest Start Date: **Week 3**	Latest Completion Date: **Week 3**

Module: **INFORMATION MANAGEMENT AND CONTROL**	Code: **K101IMC**
Activity Title: **Activity 2.6: Love Lane Boundary**	

Activity Preamble:

In activity 2.5 you have considered the nature of general business information. In this, and activities 2.7 and 2.8, you will look at methods of acquiring information specific to the land, real estate and construction professions.

For the surveyor land surveys provide valuable and up-to-date information about a site. A good survey will show all the main features of the site with all 'objects' in their correct position relative to each other and the height of the ground relative to a sea level.

Watching the video *Electric Surveying* and reading the guide *Principles of Land Surveying* will assist you in completing this activity.

Do you recognise anybody in the video?

Instructions

Charles and Nathaniel are neighbours in Love Lane. For years they have disputed the line of the boundary between their properties which has never been marked by a fence or hedge. Charles wants to plan a hedge of conifers between them and has marked its proposed centre line on the ground. Nathaniel disagrees with the line and has obtained a copy of the title deeds for his land which shows the boundary on a 1:250 scale map. Disputes of this kind are more common than you might expect.

1. Refer to the sketch plan of the Love Lane properties in the resources.
2. Study the details shown.
3. In the forum for this activity in your tutor group share your ideas for:
   - how you would help Charles and Nathaniel resolve their differences over the line of the boundary.
   - How would you collect the topographical and feature details shown on the plan?
   - How would you locate the boundary line on the ground?

Please Note: You will be required to submit a breakdown of the time you spend on this activity with a the spreadsheet for assignment 2, as explained in activity 2.2.

Learning Activity Number: **13**	Anticipated time (hours) required to complete the activity (including workplace investigation, reference to resources etc) **3 hours**
Earliest Start Date: **Week 2**	Latest Completion Date: **Week 2**

Module: **INFORMATION MANAGEMENT AND CONTROL**	Code: **K101IMC**

Activity Title: **Activity 2.7: Quiz: Englefield Estate**

Activity Preamble: Maps are an essential tool for the surveyor of all disciplines. In the UK maps of various scales are produced by the Ordnance Survey providing information about a locality in a standard form.

The aim of this activity is to let you check your ability to read a map and to glean as much information as possible from it.

The guide *Principles of Land Surveying* will assist you in completing this activity.

Instructions

Englefield is a small hamlet to the West of Reading in the Royal County of Berkshire. Although a house on this site is recorded in the Domesday Book, the current Englefield House was originally built in the Tudor period with later substantial additions and alterations made in the 18th and 19th centuries. The first recorded mention of Englefield dates back to AD871 when a battle between the Saxons and the Danes was fought on the hill behind where the house now stands.

The family of yeoman farmers who lived at Englefield took the name of the place and were lords of the manor from the twelfth century and knights of the shire in the fourteenth and fifteenth centuries and became prominent in Tudor times. Throughout its history there have been only two families in ownership since before the Norman conquest and the estate has now been held by the same family for well over three hundred years.

You can discover more information on the estate and view images of the area at http://www.englefield-est.demon.co.uk

1. You are conducting a desk-top survey of the estate and its surroundings for the owners who are examining the possibilities for making alternative use of their land and property.
2. Study the map extract of Ordnance Survey Map SU 67/77 and specifically the area south of the M4 motorway and west of Theale. Much of this land is owned by the Englefield Estate. You can also access the map at the OS site, http://www.ordnancesurvey.co.uk/oswebsite/. Click on Get-a-map and enter Englefield as the search criteria. This will give you a very clear version complete with all contours.
3. When you are fully familiar with the topography of the land and the features around the House and surrounding area complete the quiz for this activity.
4. Run the ENGLEFIELD ESTATE QUIZ by clicking on the appropriate link on the CD-ROM. Answer each question in turn and submit your completed test. You will receive an overall mark for the test and general guidance on what this indicates your knowledge of the subject to be.

This activity will contribute to assignment 1.

Please Note: You will be required to submit a breakdown of the time you spend on this activity with the spreadsheet for assignment 2, as explained in activity 2.2.

Learning Activity Number: **14**	Anticipated time (hours) required to complete the activity (including workplace investigation, reference to resources etc) **3 hours**
Earliest Start Date: **Week 2**	Latest Completion Date: **Week 2**

Module: **INFORMATION MANAGEMENT AND CONTROL**	Code: **K101IMC**
Activity Title: **Activity 2.14: Time Survey Results**	
Activity Preamble: Activity 2.13 has allowed you to practice analysing a set of data provided by your tutor. For this activity you will need to set up your own spreadsheet to analyse the time data you have collected for activities 2.2 – 2.7. You will find it helpful to refer again to the reference papers on *Statistical Presentation* and *Interpretation of Statistics* in completing this activity.	

Instructions

Open the Time Survey workbook and make sure that all the boxes for each diary day and activity time are completed in the Diary spreadsheet.

1. Find the 'Summary' data calculated for:
   - Resting
   - Domestic
   - Social
   - Internet
   - Leisure
   - GDP Study
   - GDP Admin
   - GDP VLE
   - Work
   - Travel

2. Using the blank spreadsheet 'My Analysis', analyse the data and draw conclusions about the way in which you plan and use your time. What might you do differently for the next modules?

You will submit the workbook and write up the details of your results, analysis and conclusions for assignment 2. Therefore you should give thought to how you can best present these.

Learning Activity Number: **22**	Anticipated time (hours) required to complete the activity (including workplace investigation, reference to resources etc)	**4 hours**
Earliest Start Date: **Week 4**	Latest Completion Date: **Week 4**	

THE COLLEGE OF ESTATE MANAGEMENT

Patron: HRH The Prince of Wales

Graduate Development Programme

INFORMATION MANAGEMENT AND CONTROL

Final date for receipt at CEM: Monday 10.00a.m. 10 March 2008

ASSIGNMENT 2 **Module Code: K101IMC**

There are FIVE tasks in this assignment.

Before completing this assignment you should read the Assessment Guide and relevant sections of the Course Handbook, paying particular attention to the marking criteria indicated.

The guide time for completing this assignment is 12 hours and the word limit is 3,600.

No outline answer will be issued for this assignment.

TASK 1
In 600 words, summarise with examples, the principal management functions performed either by yourself or by your line manager.

(15 marks)

TASK 2
Reflect on the time data that you recorded in your 24 hour diary during week 2 of this module, and the time that you have spent on the different study features included in the activities.

Write up your analysis of the data from activity 2.14 and present this in no more than 1,200 words making appropriate use of charts, tables etc. Your answer should include a reflective statement on the conclusions that you have drawn about the way in which you plan and use your time, and what you might do differently in the future.

(30 marks)

TASK 3
Referring to your sector of industry, discuss, in 600 words, how information provided through techniques such as DCF that you considered in Activity 3.1 may enable **two** different management processes to be performed effectively.

(15 marks)

TASK 4
In 800 words, briefly describe the information storage and retrieval system used in your workplace, and, from your reflections in Activity 3.6, discuss the main advantages and disadvantages of the knowledge/information strategy followed.

(20 marks)

TASK 5
Write a 400-word summary of the 5 key points about information and management that a real estate or construction professional should be aware of, and the main reason why each is important.

(10 marks)

Online Participation

(10 marks)

APPENDIX 2: Introductory Letter to Students

THE COLLEGE OF ESTATE MANAGEMENT
Patron: HRH The Prince of Wales

January 2008

Dear Part 1 GDP Student,

RESEARCH PROJECT INTO STUDENT STUDY TIME

During the course of this coming year I will be conducting research into the time that students have for studying at distance. This research will feed into the College's review of courses and modules with the intention of informing where we can make improvements both in the time expectations that we make when designing study and in the guidance that we provide for new students.

You should also know that I will be using the research information for my own studies towards a doctorate in education. In this respect my thesis centres on how you, as distance learning students, fit study in and around your other work and home commitments. This is an important piece of research as assumptions made about distance learning over the last twenty years have changed as more use is made of digital technologies and online communications. Similarly life styles and the balance of work and life have changed in the last decade which this research seeks to investigate. Therefore your participation will greatly valued and, although it may not be of direct benefit to you, it will help future students who follow you.

The research is divided into four phases:

Phase 1: The Pre-Course Questionnaire
You are all requested to follow this link to an online questionnaire which you should complete before you commence the Information Management and Control module (or within the first week). The link is also available on the Welcome screen of the VLE HOME site.

http://www.surveymonkey.com/s.aspx?sm=CwPG2BBDo0HnUel9rZ9y7w_3d_3d

The questionnaire is designed to find out background information about you and the full cohort of students starting Part 1 this year. In particular it asks about your education, your social world, your employment, your use of technology and your existing knowledge of the Part 1 subjects. The questions are intended to build a picture of the main influences on your time and how you intend approaching your studies. You will have an opportunity later to give actual information. None of the questions ask for highly personal information, however, you may rest assured that all the information given will remain confidential.

Phase 2: The 24 Hour Diary
Collecting accurate data about how you use your time throughout the week is important to understanding where the pressures on study time arise from. During week 2 of the Information Management and Control module you will be asked to keep a diary that records what you are engaged in for each hour of the day over a 7 day period. Don't worry; it is not so detailed that it might cause any embarrassment! Its intention is to obtain a picture of when you study and the length of time that you study for. Additionally you are asked to record the breakdown of time that you spend on different aspects of the activities studied during the recording week. You can see the spreadsheet that you will use for recording your time in the download section of the study resources within the module VLE. This provides instructions which are also repeated in the learning activities 2.2 – 2.7 and 2.14.

To make this worthwhile for you to do you will use the information that you record to provide your own analysis of your time which you will submit with your second assignment. You may

find it very revealing about your use of time and allow you to adjust your pattern of study early in the course. If you are exempt from this module then you will not be expected to complete the diary.

Phase 3: Post-Module Questionnaire
All students who take the Information Management and Control module will be requested to complete a short questionnaire about your use of time on completion of the module. This will allow you to feedback your views about specific aspects of the study which influence time. You will also be able to give general feedback. At the end of the questionnaire I will also ask you to volunteer to participate further with the research over succeeding modules.

Phase 4: Follow Up Case Studies
I will be approaching a sample of students to continue giving feedback on completion of the Technology of Building, Introduction to Law and Fundamentals of Practice modules. This will simply involve completion of a short questionnaire similar to the one used at the end of the Information Management and Control module.

The outcomes of the research will be summarised and made available to all students taking GDP during 2009. It will be communicated to staff within the College and may be used as a basis for articles in published journals and conference papers. The data will form the major component of my doctoral thesis on study time.

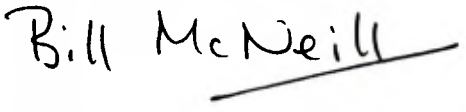
You should be aware that you may withdraw from inclusion in the research at any time by contacting me at w n.mcneill@cem.ac.uk or on +44(0)118 921 4646.

As you read this you may have some concerns that this research is being conducted by a person who is both Programme Director for your course and Module Leader for the Information Management and Control module. This is understandable; however, I can assure you that I will be conducting the research in my capacity as Director of Teaching and Learning. In this respect I will be following the British Educational Research Association ethical guidelines for educational research. If any situation arises where the integrity of the research may be compromised I will either pass responsibility for it to my co-Programme Director, Sylvia Osborn, or arrange that your information is excluded.

Although you will be asked to supply your student registration number in submitting the diary and questionnaires, this will only be used to compile a single set of data from the questionnaires and diary. You will not be asked for your name. For the analysis you will be recorded as a code number ensuring full anonymity in the resulting outcomes and reports. All the data will be held in a secure database to which only I will have access.

I hope that this brief introduction provides you with sufficient information about the research and reassures you about the integrity with which it will be conducted. As someone who is just commencing a postgraduate course of study I hope that you will see the value of participating in the research and will complete all the phases requested. If you have any questions about the research then please do not hesitate to contact me at the email address or telephone number above.

Yours sincerely,



W.N.McNeill B.Eng (Tech) MA ODE FHEA ACMI
Director of Teaching and Learning

Link to the Pre-Course Questionnaire
http://www.surveymonkey.com/s.aspx?sm=CwPG2BBDo0HnUel9rZ9y7w_3d_3d

APPENDIX 3: Pre-Course Questionnaire

1. GDP PRE-COURSE QUESTIONNAIRE – PART 1 2008

GRADUATE DEVELOPMENT PROGRAMME
PRE-COURSE QUESTIONNAIRE – PART 1 2008

Thank you for agreeing to complete this questionnaire. The purpose of this research is explained in the letter previously sent to you. If you have any queries regarding completing this questionnaire or the use that will be made of the information you give, please contact Bill McNeill at the College (email: w.n.mcneill@cem.ac.uk or tel: +(0)118 921 4646).

There are 60 questions (plus the one below) divided into 6 sections A-F. It should take you no longer than 15-20 minutes to complete.

Full confidentiality of your answers will be maintained at all time. The information you provide will be recorded separately under a research reference code so ensuring that no details relating to you as an individual will be identifiable to the academic staff and tutors. Therefore please answer each question as accurately and as honestly as you can, starting with your student registration number below.

[Note: Guidance on answering each question is given in the square brackets]. Required questions are marked with *.

*** 1. Student Registration Number**
[enter eg 0800999]

2. SECTION A - ABOUT YOU

SECTION A - ABOUT YOU
Questions 2 - 14 in this section provide information about you and your particular circumstances that may impact on your ability to study generally.

2. Foundation module
[tick if you took the module before commencing Part 1]

◯ Yes

3. Motivation
[tick one reason why you have enrolled for this course]

◯ RICS or HKIS recognised qualification
◯ Masters degree
◯ Extending current knowledge
◯ Other (please specify) _____

4. Gender
[please tick the appropriate box]

◯ Male
◯ Female

5. Age
[tick to indicate your age at the start of the course]

◯ 18-25
◯ 26-32
◯ 33-39
◯ 40-46
◯ 47+

6. Learning disability
[tick to indicate whether you have any learning impairment that may hinder your ability to study eg dyslexia]

◯ Yes
◯ No

7. Physical disability
[tick to indicate whether you have any physical impairment that may hinder your ability to study eg partial sight]

◯ Yes
◯ No

8. Nationality [enter your original nationality if more than one]
_____

9. Location [enter country / city of residence at the start of 2008]

10. Accommodation
[tick one to describe where you normally live]

- ◯ Parental home
- ◯ Bed-sit (single room)
- ◯ Apartment / flat
- ◯ House (detached, semi, terrace, maisonette)
- ◯ Hostel
- ◯ Other (please specify eg hotel)

11. Study space
[tick the area where you intend spending most of your study time]

- ◯ Separate room at home
- ◯ Shared room at home
- ◯ Separate office at work
- ◯ Shared office at work
- ◯ Other (please specify eg public library)

12. Domestic circumstances
[tick one]

- ◯ Live alone
- ◯ Live with parents
- ◯ Live with spouse / partner

13. Dependent children living with you
[enter number in each age range or leave blank]

Aged 0-3
Aged 4-6
Aged 7-9
Aged 10-12
Aged 13-15

14. Adults permanently living with you
[enter the number of people including spouse / partner, parents and older children 16+ but excluding yourself]

3. SECTION B. ABOUT YOUR EDUCATION AND SKILLS IN LEARNING

SECTION B. ABOUT YOUR EDUCATION AND SKILLS IN LEARNING
Questions 15 - 20 in this section provide information about your previous studies, qualifications and approach to learning generally.

15. Qualifications
[tick all that apply to you]

- ☐ O levels, GCEs, GCSEs or equivalent
- ☐ A Levels or equivalent
- ☐ HNC, HND or equivalent
- ☐ Diploma
- ☐ Bachelors Degree
- ☐ Postgraduate Diploma
- ☐ Masters Degree
- ☐ Doctorate
- ☐ Other (please specify)

16. Break in education
[tick the number of years since you completed your last block of formal education excluding short courses and CPD]

- ◯ < 1 year
- ◯ 1-2 years
- ◯ 2-4 years
- ◯ 4-6 years
- ◯ 6-10 years
- ◯ 10-15 years
- ◯ 15+ years

17. Distance study
[tick to indicate your previous experience of studying at distance excluding GDP foundation]

- ◯ No previous experience
- ◯ Yes, previous experience

18. Study skills

[tick the box that best describes your current academic skills in investigating, interpreting, analysing, critiquing and writing about theory and practice]

- ◯ Excellent
- ◯ Very Good
- ◯ Good
- ◯ Average
- ◯ Below Average
- ◯ Poor

19. English language skills

[tick one box that best describes your English language skills]

- ◯ First language
- ◯ Second language - IELTS 7.5+ or equivalent
- ◯ Second language - IELTS 7.0 or equivalent (Good User)
- ◯ Second language - IELTS 6.5 or equivalent
- ◯ Second language - IELTS 6.0 or equivalent (Competent)
- ◯ Second language - IELTS <6.0 or equivalent

20. Preferred method of learning

[tick one box that describes how you believe you best learn new things]

- ◯ Like new experiences - prefer to learn from the outcomes of tasks
- ◯ Like to observe and reflect - prefer to learn from thought provoking tasks
- ◯ Like to understand the theory - prefer to learn from objective tasks
- ◯ Like to get on with things promptly - prefer to learn from defined tasks

4. SECTION C. ABOUT YOUR SOCIAL WORLD

SECTION C. ABOUT YOUR SOCIAL WORLD
Questions 21 - 27 in this section provide general information about your out of work activities.

21. Social life
[tick the box that best describes your social life and involvement with activities outside work]

- ◯ Non-stop activity
- ◯ Regular activity
- ◯ Occasional activity
- ◯ Infrequent activity

22. Family circle
[tick all the family members that you see on a daily or weekly basis]

- ☐ Spouse / partner
- ☐ Children
- ☐ Grandparents
- ☐ Parents
- ☐ Brothers / sisters
- ☐ Nephews / nieces
- ☐ Uncles / aunts
- ☐ Cousins
- ☐ Others (please specify)

23. Domestic duties
[tick all activities that best describe your weekly domestic responsibilities within your family group]

- ☐ None
- ☐ Childcare
- ☐ Care of the elderly
- ☐ Shopping
- ☐ Cooking
- ☐ Household chores (cleaning, washing, ironing)
- ☐ Household maintenance (decorating, repairs)
- ☐ Gardening
- ☐ Car maintenance
- ☐ Other (please specify)

24. Domestic time
[enter the average number of hours per day you spend on domestic activities]

25. Social circle
[excluding family, enter the number of people you meet on a regular weekly basis that form your social circle]

26. Social activities
[tick all activities that you participate in on a regular weekly basis]

- ☐ Family (outside your own home)
- ☐ Sports (playing or supporting)
- ☐ Entertainment (theatre, cinema)
- ☐ Socialising (pubs, clubs, meals)
- ☐ Voluntary work (clubs, councils)
- ☐ Other (please specify activities)

27. Social time
[enter the average number of hours per day you spend participating in social activities]

5. SECTION D. ABOUT YOUR EMPLOYMENT

SECTION D. ABOUT YOUR EMPLOYMENT
Questions 28 - 42 in this section provide information about your workplace and the demands placed on you.

28. Nature of employer's business
[tick one to describe your employer's main activity within the property or construction sector]

- ◯ Not working in the sector
- ◯ Agency
- ◯ Architecture
- ◯ Building maintenance
- ◯ Building services
- ◯ Building surveying
- ◯ Central or local government
- ◯ Civil engineering
- ◯ Commercial property
- ◯ Construction
- ◯ Environment
- ◯ Facilities management
- ◯ Housing
- ◯ Investment and finance
- ◯ Planning and development
- ◯ Project management
- ◯ Property development
- ◯ Property management
- ◯ Quantity surveying
- ◯ Rural property
- ◯ Utilities - Gas, Water, Telephone
- ◯ Valuation
- ◯ Other (please specify business)

_____

29. Sector
[tick to indicate the sector that your employer operates in]

- ◯ Public sector
- ◯ Private sector

30. Current Job
[enter job title]

_____

31. Type of employment
[tick one that describes how you are employed]

- ◯ Employed
- ◯ Self-employed
- ◯ Not currently employed

32. Length of employment
[enter how many years you have been in your current job, eg 3.6]

33. Length of experience
[tick how many years experience you have working in property or construction in total since leaving school]

- ◯ < 6 months
- ◯ 6-12 months
- ◯ 1-3 years
- ◯ 3-6 years
- ◯ 6-10 years
- ◯ 10-15 years
- ◯ 15+ years

34. Employment status
[tick one that describes the status of your employment]

- ◯ Full time - permanent
- ◯ Part time - permanent
- ◯ Short term contract (< 6 months)
- ◯ Long term contract (> 6 months)
- ◯ Other (please specify)

35. Days worked per week
[tick the number of whole or part days normally worked each week]

- ◯ One
- ◯ Two
- ◯ Three
- ◯ Four
- ◯ Five
- ◯ Six
- ◯ Seven

36. Normal working week
[enter your standard total hours excluding overtime]

37. Working away from home
[please tick to indicate the number of nights during the week that you regularly live away from your home in the country where you are employed]

- ◯ None
- ◯ One
- ◯ Two
- ◯ Three
- ◯ Four
- ◯ Five +

38. Weekly overtime
[enter the number of extra hours routinely worked per week - paid or unpaid]

39. Flexible working
[tick to indicate how flexible your normal working hours are each week]

- ◯ Fixed hours
- ◯ Flexible by agreement
- ◯ Flexible within set rules
- ◯ Fully flexible (no rules)

40. Daily commuting time
[enter the average time to travel to work AND back each day]

41. Meal break
[tick one for the average length of meal break taken during work]

- ◯ < 0.5 hr
- ◯ 0.5 - 1hr
- ◯ 1 hr +

42. Time off for study
[tick the number of days each week that your employer has agreed to give you time off work for study]

- ◯ 0.5 day or less
- ◯ 1 day
- ◯ 1.5 days
- ◯ 2 days
- ◯ More than 2 days

6. SECTION E. ABOUT YOUR USE OF TECHNOLOGY

SECTION E. ABOUT YOUR USE OF TECHNOLOGY
Questions 43 - 54 in this section provide information about where and how you use technology.

43. Computer equipment at home
[tick to indicate your regular access to a computer]

- ◯ No computer
- ◯ Own computer
- ◯ Shared family computer

44. Computer equipment at work
[tick to indicate your regular access to a computer]

- ◯ No computer
- ◯ Own computer
- ◯ Shared work computer

45. Access to internet / email
[tick to indicate your regular access]

- ◯ No access at home or work
- ◯ At home only
- ◯ At work only
- ◯ At both home and work

46. Computer usage at work
[tick the percentage of your working week that you estimate you spend using the computer including emails]

- ◯ Zero
- ◯ 0 - 20%
- ◯ 21 - 40%
- ◯ 41 -60%
- ◯ 61 -80%
- ◯ 81 -100%

47. Online time at home
[tick the number of hours per week that you spend on the Internet including emails]

- ◯ < 1 hour
- ◯ 1-3 hours
- ◯ 3-5 hours
- ◯ 5-10 hours
- ◯ 10-15 hours
- ◯ 15-20 hours
- ◯ 20+ hours

48. Online time at work
[tick the number of hours per week that you spend on the Internet excluding emails]

- ◯ < 1 hour
- ◯ 1-3 hours
- ◯ 3-5 hours
- ◯ 5-10 hours
- ◯ 10-15 hours
- ◯ 15-20 hours
- ◯ 20+ hours

49. Online activity
[tick all the activities that you regularly engage in weekly]

- ☐ Emailing
- ☐ Online banking
- ☐ Online shopping
- ☐ Social networking (eg chat rooms, facebook)
- ☐ General look up and reference
- ☐ Other (please specify)

50. Social networking

[tick all that you regularly use each week or None]

- ☐ None
- ☐ Chat rooms
- ☐ Facebook
- ☐ Second life
- ☐ My Space
- ☐ U-Tube
- ☐ Friends Reunited
- ☐ Bebo
- ☐ Personal Blog
- ☐ Other (please specify)

51. Mobile phone

[tick the amount of time per day that you spend using your mobile phone including texting]

- ◯ Don't use one
- ◯ Not every day
- ◯ <30 minutes
- ◯ 30-60 minutes
- ◯ 1-2 hours
- ◯ 2-4 hours
- ◯ 4+ hours

52. Text messages

[enter the approximate number of text messages you send / receive each day]

Texts Sent
Texts Received

53. PDA (Personal Digital Assistant)

[tick the amount of time per day that you spend using your PDA including texting]

- ◯ Don't own one
- ◯ Not every day
- ◯ <30 minutes
- ◯ 30-60 minutes
- ◯ 1-2 hours
- ◯ 2-4 hours
- ◯ 4+ hours

54. MP3 player / iPod
[tick for your usage of mobile devices to listen to music etc]

- ◯ Don't own one
- ◯ Not every day
- ◯ <30 minutes
- ◯ 30-60 minutes
- ◯ 1-2 hours
- ◯ 2-4 hours
- ◯ 4+ hours

7. SECTION F. ABOUT YOUR KNOWLEDGE OF PART 1 SUBJECTS

SECTION F. ABOUT YOUR KNOWLEDGE OF PART 1 SUBJECTS
Questions 55 - 61 in this final section provide information about your existing knowledge of the subjects that are studied at Part 1. Please answer even if you have been granted exemption from assessment in one or more of the modules.

55. Management and information processes
[tick one that describes your existing knowledge in this subject area. Please answer even if you are exempt from assessment]

- ◯ Excellent
- ◯ Good
- ◯ Average
- ◯ Poor
- ◯ None

56. Building technology
[tick one that describes your existing knowledge in this subject area. Please answer even if you are exempt from assessment]

- ◯ Excellent
- ◯ Good
- ◯ Average
- ◯ Poor
- ◯ None

57. English law
[tick one that describes your existing knowledge in this subject area. Please answer even if you are exempt from assessment]

- ◯ Excellent
- ◯ Good
- ◯ Average
- ◯ Poor
- ◯ None

58. Practice in property valuation OR construction measurement, tendering and estimating
[tick one that describes your existing knowledge in this subject area]

- ◯ Excellent
- ◯ Good
- ◯ Average
- ◯ Poor
- ◯ None

59. Economics and / or finance
[tick one that describes your existing knowledge in this subject area]

- ◯ Excellent
- ◯ Good
- ◯ Average
- ◯ Poor
- ◯ None

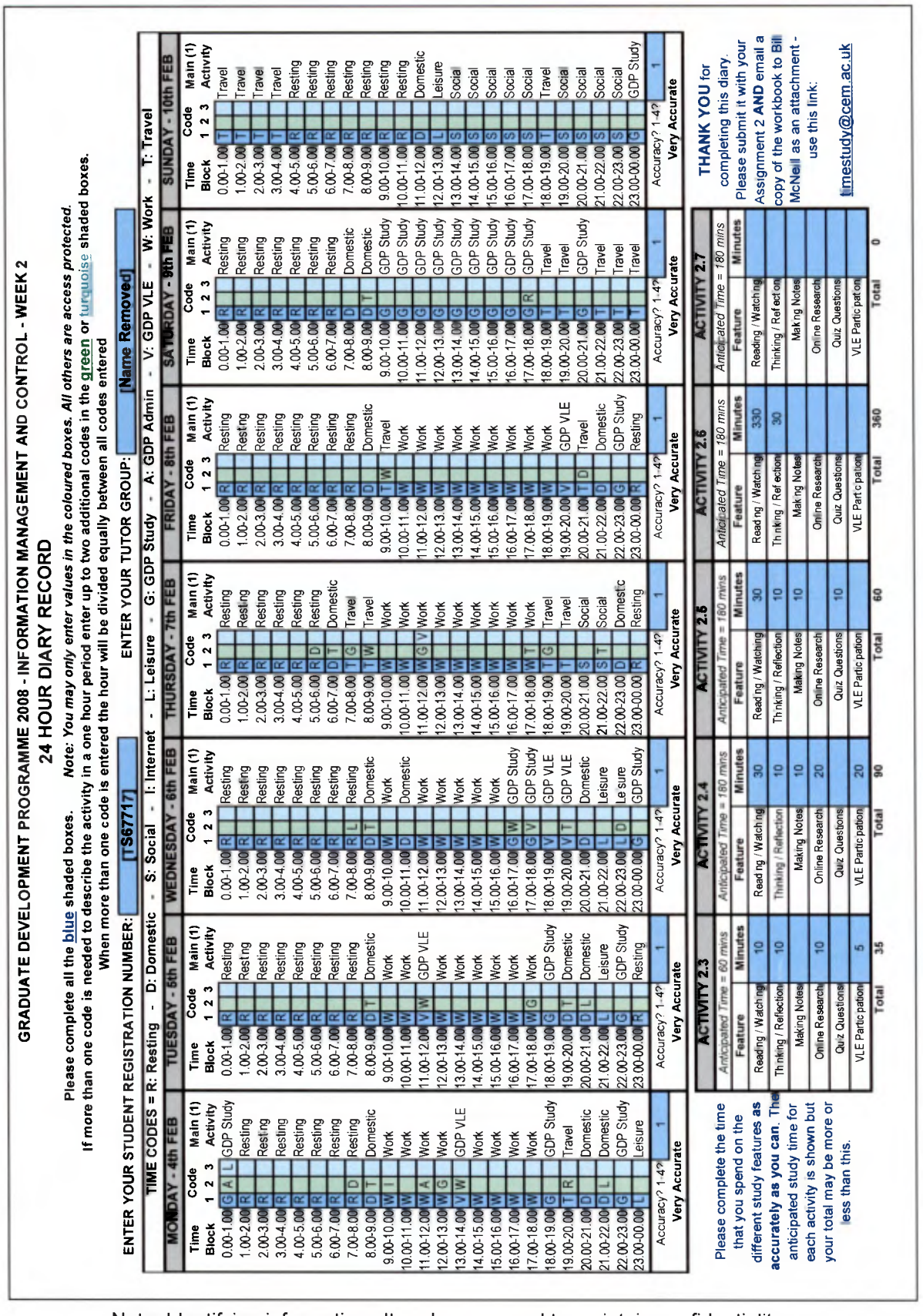
60. Discovering new knowledge
[tick all methods that you regularly use to find out information]

- ☐ Books in a library
- ☐ Surfing the Internet
- ☐ Reference books at home
- ☐ Knowledgeable friends / family
- ☐ Short courses
- ☐ Other (please specify)

61. Anticipated study time
[tick the number of hours per week that you are confident that you can consistently find for study throughout this year]

- ◯ 1-3 hours
- ◯ 4-6 hours
- ◯ 7-10 hours
- ◯ 11-14 hours
- ◯ 15-18 hours
- ◯ 19+ hours

APPENDIX 4: Typical Completed Diary Spreadsheet



GRADUATE DEVELOPMENT PROGRAMME 2008 - INFORMATION MANAGEMENT AND CONTROL - WEEK 2

24 HOUR DIARY RECORD

Please complete all the blue shaded boxes. *Note: You may only enter values in the coloured boxes. All others are access protected.*

If more than one code is needed to describe the activity in a one hour period enter up to two additional codes in the green or turquoise shaded boxes.

When more than one code is entered the hour will be divided equally between all codes entered

ENTER YOUR STUDENT REGISTRATION NUMBER: [TS67717] ENTER YOUR TUTOR GROUP: [Name Removed]

TIME CODES = R: Resting - D: Domestic - S: Social - I: Internet - L: Leisure - G: GDP Study - A: GDP Admin - V: GDP VLE - W: Work - T: Travel

MONDAY - 4th FEB					TUESDAY - 5th FEB				WEDNESDAY - 6th FEB				THURSDAY - 7th FEB				FRIDAY - 8th FEB				SATURDAY - 9th FEB				SUNDAY - 10th FEB			
Time Block	Code 1	2	3	Main (1) Activity	Time Block	Code 1	2	3	Main (1) Activity	Time Block	Code 1	2	3	Main (1) Activity	Time Block	Code 1	2	3	Main (1) Activity	Time Block	Code 1	2	3	Main (1) Activity	Time Block	Code 1	2	3	Main (1) Activity
0.00-1.00	G	A	L	GDP Study	0.00-1.00	R			Resting	0.00-1.00	R			Resting	0.00-1.00	R			Resting	0.00-1.00	R			Resting	0.00-1.00	T			Travel
1.00-2.00	R			Resting	1.00-2.00	R			Resting	1.00-2.00	R			Resting	1.00-2.00	R			Resting	1.00-2.00	R			Resting	1.00-2.00	T			Travel
2.00-3.00	R			Resting	2.00-3.00	R			Resting	2.00-3.00	R			Resting	2.00-3.00	R			Resting	2.00-3.00	R			Resting	2.00-3.00	T			Travel
3.00-4.00	R			Resting	3.00-4.00	R			Resting	3.00-4.00	R			Resting	3.00-4.00	R			Resting	3.00-4.00	R			Resting	3.00-4.00	T			Travel
4.00-5.00	R			Resting	4.00-5.00	R			Resting	4.00-5.00	R			Resting	4.00-5.00	R			Resting	4.00-5.00	R			Resting	4.00-5.00	R			Resting
5.00-6.00	R			Resting	5.00-6.00	R			Resting	5.00-6.00	R	D		Resting	5.00-6.00	R			Resting	5.00-6.00	R			Resting	5.00-6.00	R			Resting
6.00-7.00	R			Resting	6.00-7.00	R			Resting	6.00-7.00	D	T		Domestic	6.00-7.00	R			Resting	6.00-7.00	R			Resting	6.00-7.00	R			Resting
7.00-8.00	R	D		Resting	7.00-8.00	R	L		Resting	7.00-8.00	T	G		Travel	7.00-8.00	R			Resting	7.00-8.00	D			Domestic	7.00-8.00	R			Resting
8.00-9.00	D	T		Domestic	8.00-9.00	D	T		Domestic	8.00-9.00	T	W		Travel	8.00-9.00	D			Domestic	8.00-9.00	D	T		Domestic	8.00-9.00	R			Resting
9.00-10.00	W	T		Work	9.00-10.00	W			Work	9.00-10.00	W			Work	9.00-10.00	T	W		Travel	9.00-10.00	G			GDP Study	9.00-10.00	R			Resting
10.00-11.00	W			Work	10.00-11.00	D			Domestic	10.00-11.00	W			Work	10.00-11.00	W			Work	10.00-11.00	G			GDP Study	10.00-11.00	R			Resting
11.00-12.00	W	A		Work	11.00-12.00	W	V	W	GDP VLE	11.00-12.00	W	G	V	Work	11.00-12.00	W			Work	11.00-12.00	G			GDP Study	11.00-12.00	D			Domestic
12.00-13.00	W	G		Work	12.00-13.00	W			Work	12.00-13.00	W			Work	12.00-13.00	W			Work	12.00-13.00	G			GDP Study	12.00-13.00	L			Leisure
13.00-14.00	V	W		GDP VLE	13.00-14.00	W			Work	13.00-14.00	W			Work	13.00-14.00	W			Work	13.00-14.00	G			GDP Study	13.00-14.00	S			Social
14.00-15.00	W			Work	14.00-15.00	W			Work	14.00-15.00	W			Work	14.00-15.00	W			Work	14.00-15.00	G			GDP Study	14.00-15.00	S			Social
15.00-16.00	W			Work	15.00-16.00	W			Work	15.00-16.00	W			Work	15.00-16.00	W			Work	15.00-16.00	G			GDP Study	15.00-16.00	S			Social
16.00-17.00	W			Work	16.00-17.00	W			Work	16.00-17.00	W			GDP Study	16.00-17.00	W			Work	16.00-17.00	G			GDP Study	16.00-17.00	S			Social
17.00-18.00	W			Work	17.00-18.00	W	G		Work	17.00-18.00	G	V		GDP Study	17.00-18.00	W	T		Work	17.00-18.00	G	R		GDP Study	17.00-18.00	S			Social
18.00-19.00	G			GDP Study	18.00-19.00	G			GDP Study	18.00-19.00	V			GDP VLE	18.00-19.00	T	G		Travel	18.00-19.00	W			Work	18.00-19.00	T			Travel
19.00-20.00	T	R		Travel	19.00-20.00	D	T		Domestic	19.00-20.00	V	T		GDP VLE	19.00-20.00	T			Travel	19.00-20.00	V			GDP VLE	19.00-20.00	T			Travel
20.00-21.00	D			Domestic	20.00-21.00	D	L		Domestic	20.00-21.00	S			Social	20.00-21.00	T	D		Travel	20.00-21.00	T			GDP Study	20.00-21.00	S			Social
21.00-22.00	D	L		Domestic	21.00-22.00	L			Leisure	21.00-22.00	S	T		Social	21.00-22.00	D			Domestic	21.00-22.00	T			Travel	21.00-22.00	S			Social
22.00-23.00	G			GDP Study	22.00-23.00	L	D		Le sure	22.00-23.00	D			Domestic	22.00-23.00	G			GDP Study	22.00-23.00	T			Travel	22.00-23.00	S			Social
23.00-00.00	L			Leisure	23.00-00.00	R			Resting	23.00-00.00	G			GDP Study	23.00-00.00	R			Resting	23.00-00.00	T			Travel	23.00-00.00	G			GDP Study
Accuracy? 1-4?			1		Accuracy? 1-4?			1		Accuracy? 1-4?			1		Accuracy? 1-4?			1		Accuracy? 1-4?			1		Accuracy? 1-4?			1	
Very Accurate					Very Accurate					Very Accurate					Very Accurate					Very Accurate					Very Accurate				

ACTIVITY 2.3			ACTIVITY 2.4			ACTIVITY 2.5			ACTIVITY 2.7		
Anticipated Time = 60 mins			*Anticipated Time = 180 mins*			*Anticipated Time = 180 mins*			*Anticipated Time = 180 mins*		
Feature	Minutes		Feature	Minutes		Feature	Minutes		Feature	Minutes	
Reading / Watching	10		Reading / Watching	30		Reading / Watching	30		Reading / Watching	330	
Thinking / Reflection	10		Thinking / Reflection	10		Thinking / Reflection	30		Thinking / Reflection	30	
Making Notes	10		Making Notes	10		Making Notes	10		Making Notes		
Online Research	10		Online Research	20		Online Research			Online Research		
Quiz Questions			Quiz Questions			Quiz Questions	10		Quiz Questions		
VLE Participation	5		VLE Participation	20		VLE Participation			VLE Participation		
Total	35		Total	90		Total	60		Total	360	

Please complete the time that you spend on the different study features as accurately as you can. The anticipated study time for each activity is shown but your total may be more or less than this.

THANK YOU for completing this diary. Please submit it with your Assignment 2 AND email a copy of the workbook to Bill McNeill as an attachment - use this link:

timestudy@cem.ac.uk

Note: Identifying information altered or removed to maintain confidentiality

APPENDIX 5: Instructions for Diary Completion

RESEARCH INTO STUDENT STUDY TIME – READ THIS FIRST!

This workbook provides the resource that you need to complete the diary record of how you spend your time as described in Activity 2.2 of the Information Management and Control module. Completion of the diary will provide you with the information that you need to complete Activity 2.14 and Task 2 for Assignment 2 (worth 30 marks).
You are requested to complete the record as accurately as you can. The information that you provide will be collected separately and used to analyse the time usage and pressures on time that exist for College students. In this regard please note that your participation / non-participation will have no direct impact on your assignment mark.

Please save this workbook to your hard disk with your student registration number as the file name eg 0701975.

This workbook comprises four spreadsheets. The first is this **Instructions** sheet. *You are recommended to print this out for reference during the recording period.* The **Diary** spreadsheet is where you will enter your different time activities during the recording week, and the time that you spend on specific activities scheduled for week 2. Further guidance on completing this is given below. The **Summary** spreadsheet provides you with a basic analysis of your time as entered in the Diary boxes. All sheets are *password protected* except for the coloured boxes on the Diary sheet. To enable you to perform additional analysis the **My Analysis** sheet has the protection removed. This may be further analysis of the time data or the creation of charts for inclusion in your assignment answer.

COMPLETING THE DIARY

On the sheet there are columns for each of the seven days of the recording week. You must enter a code letter in the blue box for each hour of the day. There are ten code letters covering the range of daily activities for home, work and study. These are tabled below and you should make yourself familiar with them now. If you have any queries related to which code to use please use the 'Study' forum in the Club area of the Home VLE to raise these.

CODE	ACTIVITY	DESCRIPTION
HOME TIME		
R	**Resting**	Time spent asleep at night or resting during the day.
D	**Domestic**	Time engaged in normal domestic activity within your home – personal ablutions, childcare, cooking, eating meals, washing up, shopping, washing, ironing, cleaning, DIY, decorating, maintenance etc.
S	**Social**	Time engaged in social activity with family and friends outside your home – meeting for tea / coffee, eating meals, going to the pub, club or cinema, voluntary work, youth clubs, councils, professional meetings, weddings, attending church, long telephone calls etc.
L	**Leisure**	Time engaged in specific sports, hobbies or interests – playing or watching sports, model making, gardening, walking, watching TV etc. *Included in this activity is holidays so if you are away during the recording week you should show 'L' for all time slots for each day that you are away.*
I	**Internet**	Time spent on the Internet – emailing, online banking, online shopping, general surfing the net, social networking (chat rooms, Facebook, MySpace etc), multimedia sites (YouTube, Flickr), audio downloading. DO NOT INCLUDE HERE YOUR TIME SPENT ACCESSING THE STUDENT PORTAL, BLACKBOARD VLE OR OTHER COLLEGE RESOURCES (See V below).

COLLEGE TIME

G	**GDP Study**	Time engaged in your GDP studies at home or at work – include here all **productive time** such as thinking, reading reference papers / textbooks, collecting information at work, talking / texting with mentor and other students, making notes, writing up activities, preparing assignment answers, completing quizzes, watching videos, listening to audio recordings etc. DO NOT INCLUDE HERE YOUR TIME SPENT ONLINE (EXCEPT FOR THE ONLINE QUIZZES) OR ON THE VLE (See V below) OR ORGANISING YOUR STUDIES (see A below).
A	**GDP Admin**	Time engaged in organising and managing your studies – include here all **non-productive time** such as printing materials and source documents, mailing information, sorting and filing information, sorting out IT problems, sorting out admin matters with the College etc.
V	**GDP VLE**	Time engaged in reading and posting messages to the Blackboard VLE, accessing information in the student portal, accessing and reading study materials, researching on the Internet for learning activities, emailing to other students etc. DO NOT include answering quizzes here - use G.

WORK TIME

W	**Work**	Time engaged in your job between arriving for work and leaving at the end of the day. Include here meal breaks and overtime. If you have more than one job then record the time between the start and end of each or all under this code. Please use G or V to indicate any studying completed at work.
T	**Travel**	Time spent travelling to and from work. Do not include here time spent travelling for other purposes such as socialising or leisure. This should be included under the respective code.

Entering the Codes

There are three boxes for each hour of the day (blue, green and turquoise). Entering a single code letter in the blue box indicates that a full 60 minutes has been spent on the activity. Entering a letter in the blue box and the green box indicates 30 minutes have been spent on each activity. Entering a code letter in each of the three boxes indicates that 20 minutes has been spent on each of the activities.

1 Start by entering your student registration number and tutor group in the blue boxes at the top of the form.

2 For each hour of the day enter the appropriate code letter in the blue box (column 1) that best describes the activity that you are mainly engaged in. For instance if you are asleep for the whole hour then enter the letter R or enter the letter W if you are working in your job for the full hour.

3 As you enter codes in the blue boxes the form will automatically insert the description for this in the adjoining column (entries for the green and turquoise boxes will not be shown).

4 There will be instances when the hour is taken up with more than one activity. For example you may spend half an hour reading study materials and half an hour reading and posting messages in your tutor group forums. In this case enter G in the blue box (column 1) and V in the green box (column 2). By entering two codes you will indicate 30 minutes for each.

5 You may also enter the same code more than once in any particular hour. In the example above if you enter G in the blue box (column 1) and G in the green box (column 2) followed by V in the turquoise box (column 3) this will indicate that you have spent 40 minutes in study and 20 minutes on the VLE. You may also enter three separate letters, eg D, S and I to indicate 20 minutes each in domestic, social and internet activities.

6 Twenty minutes is the shortest time interval that can be recorded. If you are involved in more than four activities within the hour, or any activity lasts less than 20 minutes, you should enter the codes that best describe how your time was spent overall.

7 Finally at the end of each day indicate how accurate you consider your coding entered to be by entering a number in the blue box. There are four accuracy codes 1-4 and these are described in the table below. As with the coding please be honest in your assessment as this will assist in validating the research findings. Your choice will be confirmed as you enter the code number.

CODE	ACCURACY	DESCRIPTION
1	**Very Accurate**	The codes entered are 80%+ accurate for the overall times during the day
2	**Mostly Accurate**	The codes entered are 60 - 80% accurate for the overall times during the day
3	**Representative**	The codes entered are 40 - 60% accurate for the overall times during the day
4	**Inaccurate**	The codes entered are < 40% accurate for the overall times during the day

COMPLETING THE ACTIVITY TIMES
At the bottom of the Diary sheet there are blue boxes for you to enter how many *minutes* you estimate that you have spent on the different features of the activities scheduled to be studied during week 2. The features are:

Reading / Watching	Time spent reading the reference papers, eg Principles of Land Surveying, or the set text, or watching the video. Include here any time spent reading source information found from the Internet.
Thinking / Reflection	Time spent thinking about the content of the activities or reflecting on the content in relation to your work. Note that this time may occur during the working day.
Making Notes	Time spent writing up notes in answer to the activity questions, or general notes for your own benefit.
Online Research	Time spent online finding information or answers to activity questions.
Quiz Questions	Time spent answering the quiz questions and reading / reflecting on the feedback answers.
VLE Participation	Time spent posting messages to the forum for the particular activity and reading and answering other student's messages.

Due to the nature of the activities a time does not have to be entered for all features eg activity 2.3 does not include a quiz so 0 should be entered in the blue box for Quiz Questions.

Important Note: The times indicated for each activity have been assessed using 'rule of thumb' values which are open to question. The total for the different features do not have to add up to this value and may be more or less. As an assessment of the value of these 'rules' is a dimension of this research it is important that you try to give as accurate a set of values as possible.

QUERIES
If you have any difficulty in completing the form, or have any questions about it, please post a message in the STUDY forum in the VLE HOME site or email Bill McNeill at w.n.mcneill@cem.ac.uk.

SUBMITTING YOUR DIARY
You will submit your diary as an attachment with your second assignment for the Information Management and Control module. **YOU MAY BE ASSURED THAT THERE IS NO CONNECTION BETWEEN THE MARK THAT YOUR TUTOR AWARDS AND YOUR PARTICIPATION IN THIS RESEARCH PROJECT.** Your mark for the assignment task will be based on the data that you present and the quality of your reflective statement and conclusions.

Once you have submitted your assignment please send the workbook to Bill McNeill.
Email it as an attachment to timestudy@cem.ac.uk
PLEASE enter your Student Registration Number in the subject line.

Lastly many thanks for completing the diary and participating in this research. Your answers will greatly assist the College in improving module design and the provision of online activity.

APPENDIX 6: Post-IMC Questionnaire

1. IMC POST-MODULE QUESTIONNAIRE – PART 1 GDP 2008

GRADUATE DEVELOPMENT PROGRAMME
POST-MODULE QUESTIONNAIRE

Thank you for your contributions to this research so far, and for agreeing to complete this questionnaire. To conclude you are now requested to provide feedback on your time experience during the study of the Information Management and Control module.

There are 26 questions, divided into four sections, which should take you no longer than 10 minutes to complete. You may wish to refresh your memory of the learning activities before completing Section C.

As before full confidentiality of the answers you give will be maintained and no details relating to you as an individual will be identifiable to anyone other than myself. So again please answer each question as accurately and as honestly as you can.

All the questions relate to you and your time, and in most cases you can give further information relating to this in the box provided. If you wish to give other feedback on other aspects of the module you may use the comment box at the end of the questionnaire.

If you have any queries regarding completing this questionnaire or the use that will be made of the information you give, please contact Bill McNeill at the College (email: w.n.mcneill@cem.ac.uk or tel: +(0)118 921 4646).

[As with the Pre-Course Questionnaire guidance on answering each question is given in the square brackets]. Questions requiring an answer are marked with *.

*** 1. Student Registration Number**
[enter eg 0800999]

2. SECTION A - ABOUT YOUR TIME DURING THE MODULE

Questions 2 - 8 in this section provide feedback about you and your use of your time both during the 6 weeks of the IMC module and for the future.

2. Your weekly time

[tick to indicate the difference between the time you thought you would have available for study at the start of the module and the actual time you have had each week]

- ◯ A lot more time
- ◯ More time
- ◯ About as expected
- ◯ Less time
- ◯ A lot less time

3. Time Pressures

[tick all reasons that caused you to have less time for your studies during the module than you anticipated]

- ☐ Not applicable (ie no shortage of time experienced)
- ☐ Health demands (eg personal or family sickness)
- ☐ Work demands (eg longer hours)
- ☐ Study demands (eg poor study skills)
- ☐ Course Demands (eg attendance at Face to Face)
- ☐ Domestic demands (eg extra childcare)
- ☐ Social demands (eg extra meetings)
- ☐ Leisure demands (eg holiday)
- ☐ Other [explain at question 4]

4. Unforeseen events

[please enter brief details of any unforeseen events that seriously affected the time that you had available for study during the module]

5. Face to Face

[tick to indicate your attendance, or reason for not attending, the introductory face to face day in Hong Kong (2nd Feb) or Reading (9th Feb)]

- ◯ Attended the day
- ◯ Absent - too far to travel
- ◯ Absent - inconvenient day
- ◯ Absent - other commitments
- ◯ Absent - too costly
- ◯ Absent - could not afford the time
- ◯ Absent - optional so not deemed necessary
- ◯ Not applicable (living outside UK or Hong Kong)
- ◯ Other (please specify)

6. Time Management

[tick to indicate how well you consider you have managed your time during the IMC module]

- ◯ Very well - I have established a comfortable pattern of study that fits in with my other commitments.
- ◯ Reasonably well - I have mostly managed to fit the study into my other commitments.
- ◯ Struggling - I am still trying to find a comfortable pattern of study that suits all my commitments.
- ◯ Poorly - I am having real difficulty fitting enough time for study into my week.

7. Regular study time

[from your experience during the IMC module tick the number of hours you are confident you will regularly have each week for your future studies]

- ◯ No regular hours per week
- ◯ 1 - 3 Hours
- ◯ 4 - 6 Hours
- ◯ 7 - 10 Hours
- ◯ 11 - 14 Hours
- ◯ 15 - 18 Hours
- ◯ 19+ Hours

8. Future changes to your study arrangements
[tick all the changes that you are planning to make to your week to improve your study time]

- [ ] No changes - my time organisation is working fine
- [ ] Reduce time spent on social activities
- [ ] Reduce time spent on leisure activities
- [ ] Reduce time spent on domestic activities
- [ ] Make better use of commuting time
- [ ] Make better use of gaps in work for study
- [ ] No changes are possible to make
- [ ] Other (please specify)

3. SECTION B - HOW YOU HAVE STUDIED

Questions 9-13 in this section ask you to feedback on how you have approached studying during this module.

9. Continuous study
[tick to indicate the maximum length of time you now know you can study for before needing to take a break]

- ◯ Less than 20 minutes
- ◯ 20 - 40 minutes
- ◯ 40 - 60 minutes
- ◯ 60 - 90 minutes
- ◯ 90 minutes - 2 hours
- ◯ 2 hours +

10. Number of study breaks
[tick to indicate the number of breaks from study you would typically take in one hours continuous study]

- ◯ None
- ◯ One
- ◯ Two
- ◯ Three or more

11. Length of study breaks
[tick to indicate the typical length of each break you would take during one hour of continuous study]

- ◯ No Break
- ◯ 5 minutes
- ◯ 10 minutes
- ◯ 15 minutes
- ◯ 20 minutes
- ◯ More than 20 minutes

12. Reason for breaks in study
[tick to indicate the typical reason(s) why you need to take breaks during long periods of continuous study]

- ☐ To rest your eyes
- ☐ To rest your brain
- ☐ To have a drink
- ☐ To have a smoke
- ☐ To use the toilet
- ☐ To care for dependent children or adults
- ☐ Other (please describe)

13. Best time of day
[tick to indicate the time of day when you consider you are at your best for studying

- ◯ Early morning (06.00-09.00)
- ◯ Morning (0900-12.00)
- ◯ Lunchtime (12.00-14.00)
- ◯ Afternoon (14.00-17.00)
- ◯ Early Evening (17.00-19.00)
- ◯ Evening (19.00-22.00)
- ◯ Late evening (22.00-midnight)
- ◯ Night (Midnight-06.00)

4. SECTION C - ABOUT THE MODULE ACTIVITY TIMES

Questions 14 - 23 in this section ask for feedback about the time you have taken to complete the different learning activities included in the IMC module.

14. Pre / post test quizzes

[tick to indicate how worthwhile you found the time you spent completing the quizzes at the start and end of the module]

- ◯ Did not complete them
- ◯ Very worthwhile
- ◯ Reasonably worthwhile
- ◯ Not very worthwhile

Additional Feedback (please add further comment here)

15. Ice-breaker activity

[tick to indicate how worthwhile you found the time spent in posting and reading the introductions in activity 1.1]

- ◯ Did not participate
- ◯ Very worthwhile
- ◯ Reasonably worthwhile
- ◯ Not very worthwhile

Additional Feedback (please add further comment here)

16. Self study / research activities

[tick to indicate how accurate you generally found the guide times given for activities such as 2.8 I'm Right: You're Wrong (and 1.3, 2.2, 2.11, 2.13, 2.14, 3.2, 3.6)]

- ◯ Did not complete them
- ◯ Too short - by more than 1 hour
- ◯ Too short - by less than 1 hour
- ◯ Guide time about right
- ◯ Too long - by less than 1 hour
- ◯ Too long - by more than 1 hour

Additional Feedback (please add further comment here)

17. Knowledge testing quiz activities

[tick to indicate how accurate you generally found the guide times given for activities such as 1.2 Knowledge and its Representation (and 1.5, 2.1, 2.9, 2.12, 3.3, 3.5, 3.7)]

- ◯ Did not complete them
- ◯ Too short – by more than 1 hour
- ◯ Too short – by less than 1 hour
- ◯ Guide time about right
- ◯ Too long – by less than 1 hour
- ◯ Too long – by more than 1 hour

Additional Feedback (please add further comment here)

18. Case study activities

[tick to indicate how accurate you generally found the guide times given for activities such as 1.4 A Pig in a Poke (and 2.6, 2.10, 3.1, 3.4)]

- ◯ Did not complete them
- ◯ Too short – by more than 1 hour
- ◯ Too short – by less than 1 hour
- ◯ Guide time about right
- ◯ Too long – by less than 1 hour
- ◯ Too long – by more than 1 hour

Additional Feedback (please add further comment here)

19. Case study activities with quizzes

[tick to indicate how accurate you generally found the guide times given for activities such as 2.5 Beta Build Railway (and 2.7)]

- ◯ Did not complete them
- ◯ Too short – by more than 1 hour
- ◯ Too short – by less than 1 hour
- ◯ Guide time about right
- ◯ Too long – by less than 1 hour
- ◯ Too long – by more than 1 hour

Additional Feedback (please add further comment here)

20. Web research activities
[tick to indicate how accurate you generally found the guide times given for activities such as 2.4 Global Warming Research (and 2.3)]

- ◯ Did not complete them
- ◯ Too short – by more than 1 hour
- ◯ Too short – by less than 1 hour
- ◯ Guide time about right
- ◯ Too long – by less than 1 hour
- ◯ Too long – by more than 1 hour

Additional Feedback (please add further comment here)

21. Participation in online discussion
[tick to indicate your participation in the activities requiring you to post / read / reply to messages in the forums]

- ◯ Did not read or post in any forums
- ◯ Read messages only
- ◯ Read messages and posted replies
- ◯ Posted original messages, read others messages but posted no replies
- ◯ Posted original messages, read others messages and posted replies

Additional Feedback (please add further comment here)

22. Reason for non-participation
[tick to indicate the main reason why you did not participate fully in the discussion forums]

- ◯ Not applicable – full participation
- ◯ I did not have computer access when I needed it
- ◯ I fell behind the schedule
- ◯ Others had already said what I wanted to
- ◯ I did not understand what was required
- ◯ I did not see value in participating
- ◯ Other (please specify)

23. Assignments

[enter the length of time you estimate you spent writing your answer to each assignment (excluding preparatory study)]

Assignment 1 (in hours) [ ]

Assignment 2 (in hours) [ ]

5. SECTION D - ABOUT THE IMC MODULE GENERALLY

Questions 24 - 27 in this section ask for your feedback about the module overall.

24. Study skills
[tick to indicate your use of the online study skills advice]

- ◯ Not referred to at all
- ◯ Referred to once or twice
- ◯ Referred to weekly
- ◯ Referred to daily

Please give any feedback on this resource here

25. Overall learning
[tick to indicate how well you believe you have learned about the subject area covered in this module]

- ◯ Everything
- ◯ Most
- ◯ Some
- ◯ Little
- ◯ Nothing

26. What changes can the College make?
[enter here any changes that you consider the College could make that would help you to use your time more effectively for study (for instance greater use of podcasts / audio summaries has already been suggested in the VLE forum)]

27. Further Comments

[If you wish to make further comments or observations about the module and/or your time please enter them here]

6. FOLLOW UP RESEARCH

I would like to follow up this research by tracking the progress and use of time for a sample of students. This will involve completing a questionnaire, similar to this one, at the end of future modules studied during Part 1.

If you are willing to participate further please tick the box below to confirm.

*** 28. Future participation**
[please tick one answer]

- ◯ I agree to participate further in the time research during the course of Part 1
- ◯ I do not wish to participate further in this research project

APPENDIX 7: Post-Technology Email and Questionnaire

The College of Estate Management
Longitudinal Survey of Student Use of Time
May 2008

To: Student Number: **TS67717**
Email Address:

Hi,

Thank you for your excellent contributions so far towards this research into student's use of time. When you completed the questionnaire at the end of the Information Management and Control module you kindly agreed to participate further. Consequently I am now contacting you to request further feedback about your use of time over the last 2-4 months - both during the Technology of Building module and generally since the start of Part 1.

The data that you, and other students, have provided during the IMC module has given me a good insight into your time use around the start of the course. The follow up surveys aim to establish how things may have changed, and the reasons for this. Therefore, as with the IMC module, I ask you now to fill out a short questionnaire. The link to it is
http://www.surveymonkey.com/s.aspx?sm=YRPJm0A1NEpvj7jkOmcvUQ_3d_3d

This questionnaire includes a total of 12 questions divided into three sections and should only take you 5 – 10 minutes to complete. The third section asks for feedback about how the proportion of time that you spend on different activities has changed since week 2 of the course when you kept your diary. To refresh your memory and to help you answer these questions I reproduce below the summary times and percentages that your diary revealed.

Time Use: Monday 4th – Sunday 10th February 2008			
R	Resting	53.5 hours	31.9%
D	Domestic	14 hours	8.3%
S	Social	10.5 hours	6.3%
L	Leisure	6.3 hours	3.8%
I	Internet	0.5 hours	0.3%
G	GDP Study	20.2 hours	12%
A	GDP Admin	0.8 hours	0.5%
V	GDP VLE	4.3 hours	2.6%
W	Work	39.3 hours	23.4%
T	Travel	18.5 hours	11%

May I thank you in advance for your participation in this important piece of research. It may be that you have deferred or withdrawn from the course recently, however, I would still appreciate your feedback, especially if time was a determining factor.

If convenient I would appreciate your response by **Friday 6th June**. As previously, all information collected from this survey will remain secure and confidential. The findings will only be made available anonymously to College staff and other researchers, and may be used as part of my doctoral studies. If you have any questions about the survey and its intended use please contact me directly using the details below.

Kind Regards,

Bill

W N McNeill B.Eng(Tech) MA ODE FHEA.
Director of Teaching and Learning.
The College of Estate Management,
Whiteknights, Reading, RG6 6AW, UK
Telephone: +44 (0)118 921 4646 (direct line)
Email: w.n.mcneill@cem.ac.uk

1. GDP POST-MODULE QUESTIONNAIRE – PART 1 (TECH) 2008

GRADUATE DEVELOPMENT PROGRAMME
Longitudinal Survey

Thank you for your contributions to this research so far, and for agreeing to participate further. You are now requested to provide feedback on your time experience during the study of the Technology of Building module, and of the course so far.

There are 12 questions in this survey, divided into three sections, which should take you no longer than 5-10 minutes to complete.

As before full confidentiality of the answers you give will be maintained and no details relating to you as an individual will be identifiable to anyone other than myself. So again please answer each question as accurately and as honestly as you can.

All the questions relate to you and your time, and in many cases you can give further information relating to this in the box provided. If you wish to give feedback on the module or the course generally you may use the comment box at the end of the questionnaire.

If you have any queries regarding completing this questionnaire or the use that will be made of the information you give, please contact Bill McNeill at the College (email: w.n.mcneill@cem.ac.uk or tel: +(0)118 921 4646).

[As with the previous questionnaires, guidance on answering each question is given in the square brackets]. Questions requiring an answer are marked with *.

*** 1. Student Registration Number**
[enter eg 0800999]

*** 2. What is your current status on the course?**
[tick one to describe your progress through Part 1]

- ◯ I am continuing on to the Introduction to Law module.
- ◯ I have deferred the Technology of Building module until 2009, but am continuing to the Law module.
- ◯ I have deferred all the remaining Part 1 modules until 2009.
- ◯ I have officially withdrawn completely from the course.
- ◯ I have ceased to actively continue with the course, but have not deferred or withdrawn.

2. SECTION A - THE TECHNOLOGY OF BUILDING MODULE

Questions 3-7 ask you for your feedback on your use of time during the Technology of Building module.

Some of the questions are the same as for the Information Management and Control module and will be used for longitudinal comparison.

3. Time Management

[tick to indicate how well you consider you have managed your time during the Technology module]

- ◯ Very well - I have established a comfortable pattern of study that fits in with my other commitments.
- ◯ Reasonably well - I have mostly managed to fit the study into my other commitments.
- ◯ Struggling - I am still trying to find a comfortable pattern of study that suits all my commitments.
- ◯ Poorly - I am having real difficulty fitting enough time for study into my week.

4. Your weekly time

[tick to indicate the difference between the time you thought you would have available for study at the start of the Technology of Building module and the actual time you have had each week]

- ◯ A lot more time
- ◯ More time
- ◯ About as expected
- ◯ Less time
- ◯ A lot less time

5. Assignment time

[enter the length of time you estimate you spent writing your answer to each assignment (excluding preparatory study)]

Assignment 1 (in hours) ____

Assignment 2 (in hours) ____

6. Overall learning

[tick to indicate how much you have learned about the Technology subject covered in this module]

- ◯ Everything
- ◯ Most
- ◯ Some
- ◯ Little
- ◯ Nothing

7. What further changes should the College make?
[based on your experience during the Technology module, enter here any further changes that the College can make that will help you to use your time more effectively]

3. SECTION B - TIME PRESSURES

Questions 8-12 ask you about the time pressures that you have experienced so far during Part 1.

These questions are more directed than the general questions asked at the end of the Information Management and Control module. They reflect typical time issues that face distance learning students but do not aim to be comprehensive. If you have experienced any specific pressures beyond those stated please use the 'Other' box to describe them.

Question 12 provides space for you to describe any significant unforeseen events which have interrupted your studies. Use this to describe things such as illness, bereavement, redundancy etc, that have had a particularly severe impact on your available time.

8. Time Pressures - COURSE

[please tick all of the following statements that you feel have applied to you at one time or another during Part 1 so far]

- ☐ The GDP course is academically difficult for me
- ☐ The study materials are difficult to learn from
- ☐ I need more background knowledge to complete the studies
- ☐ The content lacks relevance to practice in my country
- ☐ I cannot understand what the assignment questions expect
- ☐ I am behind with my coursework and struggling to catch up
- ☐ Other (please specify)

9. Time Pressures - PERSONAL

[please tick all of the following statements that you feel have applied to you at one time or another during Part 1 so far]

- ☐ The study workload and pace is more than I expected
- ☐ I have difficulty finding quiet periods of time to study
- ☐ I have had problems with access to a computer and/or the internet
- ☐ I need better study skills to complete the activities and coursework
- ☐ The English language used in the course is difficult for me
- ☐ Other (please specify)

10. Time Pressures - HOME / DOMESTIC

[please tick all of the following statements that you feel have applied to you at one time or another during Part 1 so far]

- ☐ I have had limited time to study due to pressures / demands at home
- ☐ I need more support from my family / friends
- ☐ I have moved home which has affected my ability to study effectively
- ☐ I / my partner have had a baby which has affected my ability to concentrate on my studies
- ☐ I have taken time out for a holiday or other extended social event
- ☐ I have suffered an illness which has interrupted my study
- ☐ A member of my family has suffered an illness which has occupied my time
- ☐ I have suffered a family bereavement which has diverted me away from my studies
- ☐ Other (please specify)

11. Time Pressures - WORK

[please tick all of the following statements that you feel have applied to you at one time or another during Part 1 so far]

- ☐ I have not been able to give enough time to study due to demands at work
- ☐ I have needed more support from my employer / work colleagues
- ☐ I have started a new job / promotion which has affected my ability to study effectively
- ☐ I have lost my job and have consequently devoted time to finding new employment
- ☐ I am still seeking employment within the real estate / construction sector which has limited my ability to study effectively
- ☐ Other (please specify)

12. Unforeseen Events

[please enter brief details of any specific unforeseen events that have seriously affected the time that you have had available for study since completing the IMC questionnaire]

4. SECTION C - WEEKLY TIME COMMITMENT

Questions 13-14 refer you to the summary times collected from the diary you kept for Week 2 of the Information Management and Control module.

My interest in this section is to understand how you adjust your time as you progress through a course. In this respect your diary provides a useful datum as it records how you divided your time at the start of Part 1.

You are now asked to indicate how your use of time has changed since then.

13. Weekly Time Use for Study

[Referring to the summary of your weekly time use in Week 2 of the Part 1 course (sent in the covering email), please enter a value to indicate the number of hours you NOW judge you devote weekly to each of the categories of GDP activity]
NOTE: If you attended the Face to Face at Reading in February you must make an adjustment.

G - GDP Study (Hours/Week) ____
V - GDP VLE (Hours/Week) ____
A - GDP Admin (Hours/Week) ____

14. Weekly Non-Study Time Use

[Again, referring to the summary of your weekly time use, tick to indicate how your use of time for each of the non-study categories have changed since Week 2]

	No Change	Small Increase (<10%)	Large Increase (>10%)	Small Reduction (<10%)	Large Reduction (>10%)
W - Work	○	○	○	○	○
T - Travel	○	○	○	○	○
D - Domestic	○	○	○	○	○
S - Social	○	○	○	○	○
L - Leisure	○	○	○	○	○
I - Internet	○	○	○	○	○
R - Resting	○	○	○	○	○

5. THANK YOU FOR YOUR FEEDBACK

Thank you for giving up some of your valuable time to answering these questions. Your continued input is critical to this research and I sincerely trust that you will be prepared to answer a similar questionnaire later in the summer.

In the meantime, if you have any further points you wish to make please place them in the box below. You may also email me at any time - especially if any of your circumstances change that affect your time commitments whether these are course related or not.

If you have any other questions about the research do not hesitate to contact me by email, w.n.mcneill@cem.ac.uk, or by phone, +44 (0)118 921 4646.

15. Further Comments

[If you wish to make further comments or observations about the module, course and/or your time please enter them here]

APPENDIX 8: Post-Law Email and Questionnaire

The College of Estate Management
Longitudinal Survey of Student Use of Time
July 2008

To: Student Number: **TS67717**
Email Address:

Hi,

Thank you for your very helpful contributions so far towards this research into student's use of time. I am now contacting you to request further feedback about your use of time over the last 2-4 months - both during the Introduction to Law module and generally since the start of Part 1.

The data that you, and other students, have provided since the start of the course is giving me a most valuable understanding of your use of time. The follow up surveys aim to establish how things may have changed, and the reasons for this. Therefore, as with the Technology module, I ask you now to fill out another short questionnaire. The link to it is
http://www.surveymonkey.com/s.aspx?sm=IijAxZRQNYWfaoyeBGL8Lw_3d_3d

This questionnaire includes a total of 14 questions divided into three sections and should only take you 5 – 10 minutes to complete. The third section asks for feedback about how the proportion of time that you spend on different activities has changed since the end of the technology module. To refresh your memory and to help you answer these questions I reproduce below the weekly study times that you entered on the Technology questionnaire. I also schedule the perceived changes that you indicated against your diary total for non-study time.

Weekly Study Time (at end of Technology of Building module 2008)

G	GDP Study	15 Hours
A	GDP Admin	0.5 Hours
V	GDP VLE	5 Hours

Non-Study Time Use (at end of Technology of Building module 2008)

R	Resting	Small Reduction	Diary:	53.5 hours
D	Domestic	Small Reduction		14 hours
S	Social	Large Reduction		10.5 hours
L	Leisure	No Change		6.3 hours
I	Internet	No Change		0.5 hours
W	Work	No Change		39.3 hours
T	Travel	Large Increase		18.5 hours

May I thank you in advance for your participation in this important piece of research. It may be that you have deferred or withdrawn from the course recently, however, I would still appreciate your feedback, especially if time was a determining factor.

If convenient I would appreciate your response by **Friday 1st August**. As previously, all information collected from this survey will remain secure and confidential. The findings will only be made available anonymously to College staff and other researchers, and may be used as part of my doctoral studies. If you have any questions about the survey and its intended use please contact me directly using the details below.

Kind Regards,

Bill

W N McNeill B.Eng(Tech) MA ODE FHEA.
Director of Teaching and Learning.
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1. GDP POST-MODULE QUESTIONNAIRE – PART 1 (LAW) 2008

GRADUATE DEVELOPMENT PROGRAMME
Longitudinal Survey

Thank you for your contribution to this research so far, it is immensely helpful. You are now requested to provide feedback on your time experience during the study of the Introduction to Law module, and of the course to date.

There are 14 questions in this survey, divided into three sections, which should again take you no longer than 5-10 minutes to complete.

As before full confidentiality of the answers you give will be maintained and no details relating to you as an individual will be identifiable to anyone other than myself. So again please answer each question as accurately and as honestly as you can.

All the questions relate to you and your time, and in many cases you can give further information relating to this in the box provided. If you wish to give feedback on the module or the course generally you may use the comment box at the end of the questionnaire.

If you have any queries regarding completing this questionnaire or the use that will be made of the information you give, please contact Bill McNeill at the College (email: w.n.mcneill@cem.ac.uk or tel: +(0)118 921 4646).

[As with the previous questionnaires, guidance on answering each question is given in the square brackets]. Questions requiring an answer are marked with *.

*** 1. Student Registration Number**
[enter eg 0800999]

*** 2. What is your current status on the course?**
[tick one to describe your progress through Part 1]

- ◯ I am continuing on to the Fundamentals of Practice module.
- ◯ I have deferred the Introduction to Law module until 2009, but am continuing to the Practice module.
- ◯ I have deferred all the remaining Part 1 modules until 2009.
- ◯ I have officially withdrawn completely from the course.
- ◯ I have ceased to actively continue with the course, but have not deferred or withdrawn.

2. SECTION A - THE INTRODUCTION TO LAW MODULE

Questions 3-7 ask you for your feedback on your use of time during the Introduction to Law module.

Some of the questions are the same as for the previous modules and will be used for longitudinal comparison.

3. Time Management

[tick to indicate how well you consider you have managed your time during the Law module]

- ◯ Very well - I have a comfortable pattern of study that fits in with my other commitments.
- ◯ Reasonably well - I mostly manage to fit the study into my other commitments.
- ◯ Struggling - I continue to seek a comfortable pattern of study that suits all my commitments.
- ◯ Poorly - I still have real difficulty fitting enough time for study into my week.

4. Your weekly time

[tick to indicate the difference between the time you thought you would have available for study at the start of the Introduction to Law module and the actual time you have needed each week]

- ◯ A lot more time
- ◯ More time
- ◯ About as expected
- ◯ Less time
- ◯ A lot less time

5. Assignment time

[enter the length of time you estimate you spent writing your answer to each assignment (excluding preparatory study)]

Assignment 1 (in hours) ____

Assignment 2 (in hours) ____

6. Overall learning

[tick to indicate how much you have learned about the Law subject covered in this module]

- ◯ Everything
- ◯ Most
- ◯ Some
- ◯ Little
- ◯ Nothing

7. What further changes should the College make?
[based on your experience during the Law module, enter here any further changes that the College can make that will help you to use your time more effectively. You do not need to repeat suggestions already made]

3. SECTION B - TIME PRESSURES and COMMITMENT

Questions 8-12 ask you further about the time pressures that you have experienced so far during Part 1. The pressures described may affect either your ability or your motivation to study (or both).

The first four questions ask you to rate particular problems that you have had. To answer these start by assuming that your normal time commitment each week is 100%. Then, for each of the issues you have experienced, choose a percentage that reflects the extent to which the time that you were able to give was affected by it.

If you consider that your commitment increased then indicate this in the Further Comments box. You may also use this box to describe any specific time pressures beyond those stated.

Finally question 12 provides space for you to describe any significant unforeseen events which have interrupted your studies. Use this to describe how things such as illness, bereavement, redundancy etc, have had a particularly severe impact on your available time.

8. Time Pressures and Commitment - COURSE

[if you have experienced any of the following during Part 1 so far, please rate the effect it has had on your weekly time commitment. For example lack of relevance might reduce your motivation to learn, and influence the effective time you give to study, from 100% to 40%]

	100%	80%	60%	40%	20%	N/A
Study that you find academically difficult	○	○	○	○	○	○
Studying materials that are difficult to learn from	○	○	○	○	○	○
Needing more background knowledge to complete your study	○	○	○	○	○	○
Studying content that lacks relevance to your practice	○	○	○	○	○	○
Not understanding what the assignment questions expect	○	○	○	○	○	○
Not understanding what the learning activities expect	○	○	○	○	○	○
Falling behind with coursework	○	○	○	○	○	○

Further comment

9. Time Pressures and Commitment - PERSONAL

[if you have experienced any of the following during Part 1 so far, please rate the effect it has had on your weekly time commitment. For example needing to refer to a dictionary to understand words might reduce the speed of your study, and influence the effective time you will give, from 100% to 80%]

	100%	80%	60%	40%	20%	N/A
Study workload and pace that is more than you expected	○	○	○	○	○	○
Not being able to find quiet periods of time to study	○	○	○	○	○	○
Having problems with access to a computer and/or the Internet	○	○	○	○	○	○
Needing better study skills to complete the activities and coursework	○	○	○	○	○	○
Having difficulty with the English language used in the course	○	○	○	○	○	○

Further comment

10. Time Pressures and Commitment - HOME / DOMESTIC

[if you have experienced any of the following during Part 1 so far, please rate the effect it has had on your weekly time commitment. For example suffering a heavy cold might reduce your ability to learn, and influence the effective time you give to studying, from 100% to 60%]

	100%	80%	60%	40%	20%	N/A
Dealing with family problems / disputes	○	○	○	○	○	○
Dealing with social problems / disputes	○	○	○	○	○	○
Dealing with household problems	○	○	○	○	○	○
Moving home	○	○	○	○	○	○
Caring for small children / having a baby	○	○	○	○	○	○
Caring for adults	○	○	○	○	○	○
Taking a holiday or other extended social event	○	○	○	○	○	○
Arranging a wedding / getting married	○	○	○	○	○	○
Suffering an illness	○	○	○	○	○	○
A member of your family suffering an illness	○	○	○	○	○	○
Suffering a family bereavement	○	○	○	○	○	○

Further comment

11. Time Pressures and Commitment - WORK

[if you have experienced any of the following during Part 1 so far, please rate the effect it has had on your weekly time commitment. For example having to work overtime might reduce your opportunity to study, and influence the effective time you give to it, from 100% to 20%]

	100%	80%	60%	40%	20%	N/A
Having to work longer hours	○	○	○	○	○	○
Having to work away from home	○	○	○	○	○	○
Starting a new job / promotion	○	○	○	○	○	○
Being made redundant	○	○	○	○	○	○
Searching for new employment	○	○	○	○	○	○

Further comment

12. Unforeseen Events

[please enter brief details of any specific unforeseen events that have seriously affected the time that you have had available for study since completing the Technology questionnaire]

4. SECTION C - WEEKLY TIME COMMITMENT

My interest in this section is to understand how you adjust your time as you progress through a course. Therefore, questions 13-14 refer you to the summary times that you gave in your response to the Technology of Building questionnaire, and you are now asked to indicate how your use of time has changed since then.

Questions 15 and 16 ask you about your protected study time. This is time during the week that you have designated as time when you will be studying and NOTHING is allowed to interfer with this. Protected time is specific hours during the day or at weekends that you have found fit comfortably within your lifestyle and other commitments.

Your protected time is likely to be less than your weekly study time which may increase depending on the subject content being studied and/or the imminence of the coursework submission date.

13. Weekly Time Use for Study

[Referring to your weekly time use taken from the Technology of Building questionnaire (sent in the covering email), please enter a value to indicate the number of hours that you NOW judge you devote weekly to each of the categories of GDP activity]

G - GDP Study (Hours/Week) _____

V - GDP VLE (Hours/Week) _____

A - GDP Admin (Hours/Week) _____

14. Weekly Non-Study Time Use

[Again, referring to the summary of your weekly time use, tick to indicate how your use of time for each of the non-study categories have changed since completing the Technology of Building module]

	No Change	Small Increase (<10%)	Large Increase (>10%)	Small Reduction (<10%)	Large Reduction (>10%)
W - Work	○	○	○	○	○
T - Travel	○	○	○	○	○
D - Domestic	○	○	○	○	○
S - Social	○	○	○	○	○
L - Leisure	○	○	○	○	○
I - Internet	○	○	○	○	○
R - Resting	○	○	○	○	○

15. Protected study time

[enter the number of hours that you have designated for study and protected from interference or other distraction EACH week]

Protected time (in hours) _____

16. Protected time problems

[describe here any problems that you have found in designating protected study time on a regular weekly basis]

5. THANK YOU FOR YOUR FEEDBACK

Thank you for giving up some of your valuable time to answering these questions. Your continued input is critical to this research and I sincerely trust that you will be prepared to answer a similar questionnaire later in the summer.

In the meantime, if you have any further points you wish to make please place them in the box below. You may also email me at any time - especially if any of your circumstances change that affect your time commitments whether these are course related or not.

If you have any other questions about the research do not hesitate to contact me by email, w.n.mcneill@cem.ac.uk, or by phone, +44 (0)118 921 4646.

17. Further Comments

[If you wish to make further comments or observations about the module, course and/or your time please enter them here]

APPENDIX 9: Post-Practice Email and Questionnaire

The College of Estate Management
Longitudinal Survey of Student Use of Time
September 2008

To: Student Number: **TS67717**
Email Address:

Hi,

Once again thank you for your very helpful contributions so far towards this research into student's use of time. I am now contacting you to request further feedback about your use of time over the last 2-4 months - both during the Fundamentals of Practice module and generally since the start of Part 1.

The data that you, and other students, have provided since the start of the course is giving me a most valuable understanding of your use of time. The follow up surveys aim to establish how things may have changed, and the reasons for this. Therefore, as with the previous modules, I ask you now to fill out another short questionnaire. The link to it is
http://www.surveymonkey.com/s.aspx?sm=2_2bf25MzMkr_2b3Q2zmWCpDbg_3d_3d

This questionnaire includes a total of 26 questions divided into five sections and should only take you 10-15 minutes to complete. The third section asks for feedback about how the proportion of time that you spend on different activities has changed since the end of the Law module. To refresh your memory and to help you answer these questions I reproduce below the weekly study times that you entered on the Law questionnaire. I also schedule the perceived changes that you indicated against your diary total for non-study time.

Weekly Study Time (at end of Introduction to Law module 2008)

G	GDP Study	12 Hours
A	GDP Admin	0.5 Hours
V	GDP VLE	8 Hours

Non-Study Time Use (at end of Introduction to Law module 2008)

R	Resting	Small Reduction	Diary: 53.5 hours
D	Domestic	No Change	14 hours
S	Social	Small Reduction	10.5 hours
L	Leisure	Small Increase	6.3 hours
I	Internet	No Change	0.5 hours
W	Work	Small Increase	39.3 hours
T	Travel	Small Increase	18.5 hours

May I thank you in advance for your participation in this important piece of research. It may be that you have deferred or withdrawn from the course recently, however, I would still appreciate your feedback, especially if time was a determining factor.

If convenient I would appreciate your response by **Friday 3rd October**. As previously, all information collected from this survey will remain secure and confidential. The findings will only be made available anonymously to College staff and other researchers, and may be used as part of my doctoral studies. If you have any questions about the survey and its intended use please contact me directly using the details below.

Kind Regards,

Bill

W N McNeill B.Eng(Tech) MA ODE FHEA.
Director of Teaching and Learning.
The College of Estate Management,
Whiteknights, Reading, RG6 6AW, UK
Telephone: +44 (0)118 921 4646 (direct line)
Email: w.n.mcneill@cem.ac.uk

1. GDP POST-MODULE QUESTIONNAIRE – PART 1 (FUNDAMENTALS OF PRACTICE) 2008

GRADUATE DEVELOPMENT PROGRAMME
Longitudinal Survey

Thank you again for your contributions to this research so far. This is the last of the module questionnaires and you are now requested to provide feedback on your time experience during the study of the Fundamentals of Practice (Real Estate or Construction) module, and of the course to date.

There are 26 questions in this survey, divided into five sections, which should again take you no longer than 10-15 minutes to complete. The additional sections relate to exams and revision, and to any holiday you have taken.

As before full confidentiality of the answers you give will be maintained and no details relating to you as an individual will be identifiable to anyone other than myself. So again please answer each question as accurately and as honestly as you can.

All the questions relate to you and your time, and in many cases you can give further information relating to this in the box provided. If you wish to give feedback on the module or the course generally you may use the comment box at the end of the questionnaire.

If you have any queries regarding completing this questionnaire or the use that will be made of the information you give, please contact Bill McNeill at the College (email: w.n.mcneill@cem.ac.uk or tel: +(0)118 921 4646).

[As with the previous questionnaires, guidance on answering each question is given in the square brackets]. Questions requiring an answer are marked with *.

*** 1. Student Registration Number**
[enter eg 0800999]

*** 2. What is your current status on the course?**
[tick one to describe your progress through Part 1]

- ◯ I am continuing on to the Exams and the Markets and Finance module.
- ◯ I have deferred the Fundamentals of Practice module until 2009, but am continuing to the Exams and Markets and Finance module.
- ◯ I have deferred all the remaining Part 1 modules until 2009.
- ◯ I have officially withdrawn completely from the course.
- ◯ I have ceased to actively continue with the course, but have not deferred or withdrawn.

2. SECTION A - THE FUNDAMENTALS OF PRACTICE MODULE

Questions 3-9 ask you for your feedback on your use of time during the Fundamentals of Practice module.

Some of the questions are the same as for the previous modules and will be used for longitudinal comparison.

3. Time Management

[tick to indicate how well you consider you have managed your time during the Practice module]

- ◯ Very well - I have a comfortable pattern of study that fits in with my other commitments.
- ◯ Reasonably well - I mostly manage to fit the study into my other commitments.
- ◯ Struggling - I continue to seek a comfortable pattern of study that suits all my commitments.
- ◯ Poorly - I still have real difficulty fitting enough time for study into my week.

4. Your weekly time

[tick to indicate the difference between the time you thought you would have available for study at the start of the Fundamentals of Practice module and the actual time you have needed each week]

- ◯ A lot more time
- ◯ More time
- ◯ About as expected
- ◯ Less time
- ◯ A lot less time

5. Assignment time

[enter the length of time you estimate you spent writing your answer to each assignment (excluding preparatory study)]

Assignment 1 (in hours) ____

Assignment 2 (in hours) ____

6. Face to Face

[if you attended the face to face sessions in Reading or Hong Kong please tick to indicate how beneficial the time spent was to your studies]

	Benefit of Attendance
July Workshop - Reading	▼
September Revision - Reading	▼
July Workshop / Revision - Hong Kong	▼

7. Improving study

[for each of the following tick to indicate the extent to which it could have benefited you and your use of time during the Fundamentals of Practice module]

	Very helpful	Reasonably helpful	Useful as an option	Not helpful
Weekly audio talks (podcasts) about the forthcoming study from the module tutor	◯	◯	◯	◯
Online videocast at the start of the module introducing the subject, themes, activities and assignments	◯	◯	◯	◯
Interactive computer based tutorials for learning methods and procedures eg in valuation / measurement	◯	◯	◯	◯

8. Overall learning
[tick to indicate how much you have learned about the Practice subject covered in this module]

- ◯ Everything
- ◯ Most
- ◯ Some
- ◯ Little
- ◯ Nothing

9. What further changes should the College make?
[based on your experience during the Practice module, enter here any further changes that the College can make that will help you to use your time more effectively. You do not need to repeat suggestions already made]

3. SECTION B - TIME PRESSURES and COMMITMENT

Questions 10-14 ask you further about the time pressures that you have experienced so far during Part 1. The pressures described may affect either your ability or your motivation to study (or both). You have already answered similar questions but please complete these as this will indicate how your feelings may have changed.

The first four questions ask you to rate particular problems that you have had. To answer these start by assuming that your normal time commitment each week is 100%. Then, for each of the issues you have experienced, choose a percentage that reflects the extent to which the time that you were able to give was affected by it.

If you consider that your commitment increased then describe this in the Further Comments box. You may also use this box to describe any specific time pressures beyond those stated.

Finally question 14 provides space for you to describe any significant unforeseen events which have interrupted your studies. Use this to describe how things such as illness, bereavement, redundancy etc, have had a particularly severe impact on your available time.

10. Time Pressures and Commitment - COURSE

[if you have experienced any of the following during Part 1 so far, please rate the effect it has had on your weekly time commitment. For example lack of relevance might reduce your motivation to learn, and influence the effective time you give to study, from 100% to 40%]

	100%	80%	60%	40%	20%	N/A
Study that you find academically difficult	○	○	○	○	○	○
Studying materials that are difficult to learn from	○	○	○	○	○	○
Needing more background knowledge to complete your study	○	○	○	○	○	○
Studying content that lacks relevance to your practice	○	○	○	○	○	○
Not understanding what the assignment questions expect	○	○	○	○	○	○
Not understanding what the learning activities expect	○	○	○	○	○	○
Falling behind with coursework	○	○	○	○	○	○

Further comment

11. Time Pressures and Commitment - PERSONAL

[if you have experienced any of the following during Part 1 so far, please rate the effect it has had on your weekly time commitment. For example needing to refer to a dictionary to understand words might reduce the speed of your study, and influence the effective time you will give, from 100% to 80%]

	100%	80%	60%	40%	20%	N/A
Study workload and pace that is more than you expected	○	○	○	○	○	○
Not being able to find quiet periods of time to study	○	○	○	○	○	○
Having problems with access to a computer and/or the internet	○	○	○	○	○	○
Needing better study skills to complete the activities and coursework	○	○	○	○	○	○
Having difficulty with the English language used in the course	○	○	○	○	○	○

Further comment

12. Time Pressures and Commitment - HOME / DOMESTIC

[if you have experienced any of the following during Part 1 so far, please rate the effect it has had on your weekly time commitment. For example suffering a heavy cold might reduce your ability to learn, and influence the effective time you give to studying, from 100% to 60%]

	100%	80%	60%	40%	20%	N/A
Dealing with family problems / disputes	○	○	○	○	○	○
Dealing with social problems / disputes	○	○	○	○	○	○
Dealing with household problems	○	○	○	○	○	○
Moving home	○	○	○	○	○	○
Caring for small children / having a baby	○	○	○	○	○	○
Caring for adults	○	○	○	○	○	○
Taking a holiday or other extended social event	○	○	○	○	○	○
Arranging a wedding / getting married	○	○	○	○	○	○
Suffering an illness	○	○	○	○	○	○
A member of your family suffering an illness	○	○	○	○	○	○
Suffering a family bereavement	○	○	○	○	○	○

Further comment

13. Time Pressures and Commitment - WORK

[if you have experienced any of the following during Part 1 so far, please rate the effect it has had on your weekly time commitment. For example having to work overtime might reduce your opportunity to study, and influence the effective time you give to it, from 100% to 20%]

	100%	80%	60%	40%	20%	N/A
Having to work longer hours	○	○	○	○	○	○
Having to work away from home	○	○	○	○	○	○
Starting a new job / promotion	○	○	○	○	○	○
Being made redundant	○	○	○	○	○	○
Searching for new employment	○	○	○	○	○	○

Further comment

14. Unforeseen Events

[please enter brief details of any specific unforeseen events that have seriously affected the time that you have had available for study since completing the Technology questionnaire]

4. SECTION C - WEEKLY TIME COMMITMENT

My interest in this section is to understand how you adjust your time as you progress through a course. Therefore, questions 15 and 16 refer you to the summary times that you gave in your response to the Introduction to Law questionnaire, and you are now asked to indicate how your use of time has changed since then.

Questions 17 and 18 ask you further about your protected study time. This is time during the week that you have designated as time when you will be studying and NOTHING is allowed to interfer with this. Protected time is specific hours during the day or at weekends that you have found fit comfortably within your lifestyle and other commitments.

Your protected time is likely to be less than your weekly study time which may increase depending on the subject content being studied and/or the imminence of the coursework submission date.

15. Weekly Time Use for Study

[Referring to your weekly time use taken from the Introduction of Law questionnaire (sent in the covering email), please enter a value to indicate the number of hours that you NOW judge you devote weekly to each of the categories of GDP activity]

G - GDP Study (Hours/Week) ____

V - GDP VLE (Hours/Week) ____

A - GDP Admin (Hours/Week) ____

16. Weekly Non-Study Time Use

[Again, referring to the summary of your weekly time use, tick to indicate how your use of time for each of the non-study categories have changed since completing the Introduction to Law module]

	No Change	Small Increase (<10%)	Large Increase (>10%)	Small Reduction (<10%)	Large Reduction (>10%)
W - Work	○	○	○	○	○
T - Travel	○	○	○	○	○
D - Domestic	○	○	○	○	○
S - Social	○	○	○	○	○
L - Leisure	○	○	○	○	○
I - Internet	○	○	○	○	○
R - Resting	○	○	○	○	○

17. Protected study time

[on the basis of your experience so far during Part 1, enter the number of hours that you are now comfortable to designate for study and protect from interference or other distraction EACH week]

Protected time (in hours) ____

18. Finding Extra Time

[assuming that you have maintained the protected number of hours indicated above, please rank the following to indicate the order in which you create additional time for study in your week]

	Choose 1=First, 2=Second ... 8=Last
Take unpaid leave	
Take annual leave (holiday)	
Reduce social time	
Reduce leisure time	
Reduce domestic time	
Work shorter hours	
Reduce hours resting	
Other	

If 'Other' please specify

5. SECTION D - HOLIDAY TIME

The Fundamentals of Practice modules have run over the summer period (in the Northern hemisphere) during which you may have taken an extended holiday from work. Questions 19-22 ask about your time management juggling study with holiday.

19. Holiday

[tick to indicate the length of any continuous holiday you have taken since the end of the law module]

- ☐ None taken
- ☐ 1-3 days
- ☐ 4-7 days
- ☐ 8-14 days
- ☐ 15+ days

20. Holiday destination

[tick to indicate where your holiday was taken]

- ◯ I stayed at my home
- ◯ I holidayed in my home country (eg UK)
- ◯ I mixed some travel with time spent at home
- ◯ I travelled abroad

Other (please specify)

21. Study during holiday

[tick to indicate whether you completed any study during the period you were on holiday]

- ◯ I did no study at all and just relaxed
- ◯ I took study materials but did no study
- ◯ I took study materials and completed some study
- ◯ I took no materials but did log into the VLE
- ◯ Not Applicable (no holiday taken)

Other (please specify)

22. Creating time for holiday

[tick to indicate how you created time within the study period to take holiday]

- ☐ Increased study time **before** holiday to **get ahead of the timetable**
- ☐ Increased **study time after** holiday to catch up with the timetable
- ☐ **No time change - accepted** reduced study and **falling behind** the timetable
- ☐ **Used assignment extensions** to extend study **period** and **free up time** for holiday

Other (please specify)

6. SECTION E - ASSESSMENT AND YOUR TIME

The following questions 23 - 26 ask about your use of time in respect of the assignments during Part 1 and your preparations for the forthcoming exams.

23. Assignment Extensions

[tick to indicate the assignments during Part 1 for which you required an extension of time]

	Assignment 1	Assignment 2
Information Management and Control	☐	☐
Technology of Building	☐	☐
Introduction to Law	☐	☐
Fundamentals of Practice	☐	☐

24. Exam Preparation

[tick to indicate how well you consider study of the Law and Practice modules has prepared you for the exams in October]

	Introduction to Law	Fundamentals of Practice
Very well	☐	☐
Reasonably well	☐	☐
Just enough	☐	☐
Not enough	☐	☐

25. Exam Revision Time

[tick to indicate how many days (measured as 8 hours or more per day) you estimate you will give to revision in the three weeks leading up to the exams - please be realistic!]

- ◯ 1-3 days
- ◯ 4-6 days
- ◯ 7-9 days
- ◯ 10-12 days
- ◯ 13-15 days
- ◯ 16-18 days
- ◯ 19-21 days

26. Creating Revision Time

[tick to indicate all the means by which you plan to create time for revision]

- [ ] Take annual leave
- [ ] Take unpaid leave
- [ ] Use time given off work by employer
- [ ] Reduce social activities
- [ ] Reduce domestic activities
- [ ] Reduce leisure activities
- [ ] Reduce rest time

Other (please specify)

7. THANK YOU FOR YOUR FEEDBACK

Thank you for giving up your valuable time to answering these questions. Your continued input is critical to this research and I sincerely trust that you will be prepared to answer a questionnaire that will be sent to all students later in the autumn.

In the meantime, I would like to telephone a sample of you to clarify points that you have made. If you are happy to take my call please complete the question below.

Otherwise, as with the previous questionnaires, if you have any further points you wish to make please place them in the box below. You may also email me at any time - especially if any of your circumstances change that affect your time commitments whether these are course related or not.

If you have any other questions about the research do not hesitate to contact me by email, w.n.mcneill@cem.ac.uk, or by phone, +44 (0)118 921 4646.

27. Telephone Feedback

[if you agree to answer further questions about your feedback by telephone please provide the following details]

Your telephone number (including international dialling code)

The best time of day to reach you on this number

28. Further Comments

[If you wish to make further comments or observations about the module, course and/or your time please enter them here]

APPENDIX 10: Part 2 Feedback Questionnaire

RESEARCH PROJECT INTO STUDENT STUDY TIME

A big thank you to everyone who has contributed to this research. It has provided an important insight into how you as a group of mature working students allocate your time. As you draw toward the end of Part 2 can I ask you one last time to complete this short questionnaire which should take you no more than a couple of minutes to complete.

All the questions relate to your time over the last two years. If you wish to give further feedback on other aspects of your time please use the comment boxes. As usual all the answers will remain confidential. Do please be as honest and accurate as you can.

1	**Average Hours per Week** The following summarise the average daily and weekly hours you allocate to the different activities. *Please tick to indicate their accuracy.*			Too High		About Right		Too Low
	Resting	57.4 hrs/wk	8.2 hrs/day	☐	☐	☐	☐	☐
	Domestic	14.0 hrs/wk	2.0 hrs/day	☐	☐	☐	☐	☐
	Social Leisure	22.4 hrs/wk (combined)	3.2 hrs/day (combined)	☐	☐	☐	☐	☐
	Internet	3.5 hrs/wk	0.5 hrs/day	☐	☐	☐	☐	☐
	Work	42.5 hrs/wk	8.5 hrs/day	☐	☐	☐	☐	☐
	Travel	5.0 hrs/wk	1.0 hrs/day	☐	☐	☐	☐	☐
	GDP Study	16.8 hrs/wk	2.4 hrs/day	☐	☐	☐	☐	☐
	GDP VLE	4.2 hrs/wk	0.6 hrs/day	☐	☐	☐	☐	☐
	GDP Admin	2.1 hrs/wk	0.3 hrs/day	☐	☐	☐	☐	☐
Comment:								

2	**Variability of your time** The research indicates that your weekly time for the activities is generally constant or flexible. *Please tick to indicate your agreement for each.*		Strongly Agree				Strongly Disagree
	Resting	Constant – hours vary little	☐	☐	☐	☐	☐
	Domestic	Constant – hours vary little	☐	☐	☐	☐	☐
	Social	Flexible – hours vary widely	☐	☐	☐	☐	☐
	Leisure	Flexible – hours vary widely	☐	☐	☐	☐	☐
	Internet	Flexible – hours vary widely	☐	☐	☐	☐	☐
	Work	Constant – hours vary little	☐	☐	☐	☐	☐
	Travel	Constant – hours vary little	☐	☐	☐	☐	☐
	GDP Study	Constant – hours vary little	☐	☐	☐	☐	☐
	GDP VLE	Constant – hours vary little	☐	☐	☐	☐	☐
	GDP Admin	Flexible – hours vary widely	☐	☐	☐	☐	☐
Comment:							

3	**Range of Hours per Week** The following identifies a range of time for each activity. Does each include your average time? *Please tick to indicate your answer for each.*		Yes	No
	Resting	54.5 - 62.7 hours / week	☐	☐
	Domestic	9.8 - 17.8 hours / week	☐	☐
	Social	6.0 – 15.0 hours / week	☐	☐
	Leisure	6.0 - 17.2 hours / week	☐	☐
	Internet	1.0 – 4.0 hours / week	☐	☐
	Work	34.8 - 44.3 hours / week	☐	☐
	Travel	5.0 - 10.9 hours / week	☐	☐
	GDP Study	9.8 – 17.0 hours / week	☐	☐
	GDP VLE	1.5 - 4.4 hours / week	☐	☐
	GDP Admin	0.3 – 3.0 hours / week	☐	☐
Comment:				

4	Please state your **Student Registration Number**	

Further Comment (on your time generally)

Thank you for completing these questions.

Please return your completed questionnaire by hand, by post or by email to Bill McNeill at the College (email: w.n.mcneill@cem.ac.uk).

APPENDIX 11: Typical Student Profile

SUMMARY OF TIME ACTIVITY

Research URI: **TS67717**
Gender: **Female** **S England**
Age on 1st Feb: **28.7** **(26-32 Range)**
Nationality: **Hungarian** **Expat**
Location: **Surrey, UK**
Study Motivation: **Masters degree**

Tutor Group: [Detail Removed]
Course: **Full Course**
Foundation Course: **Yes**
Route: **Property**
Disability: Learning **No**
Physical **No**

Pre-Quiz: Full
Diary: Returned
Assign 1 Marked
Assign 2 Marked
Post-IMC Full

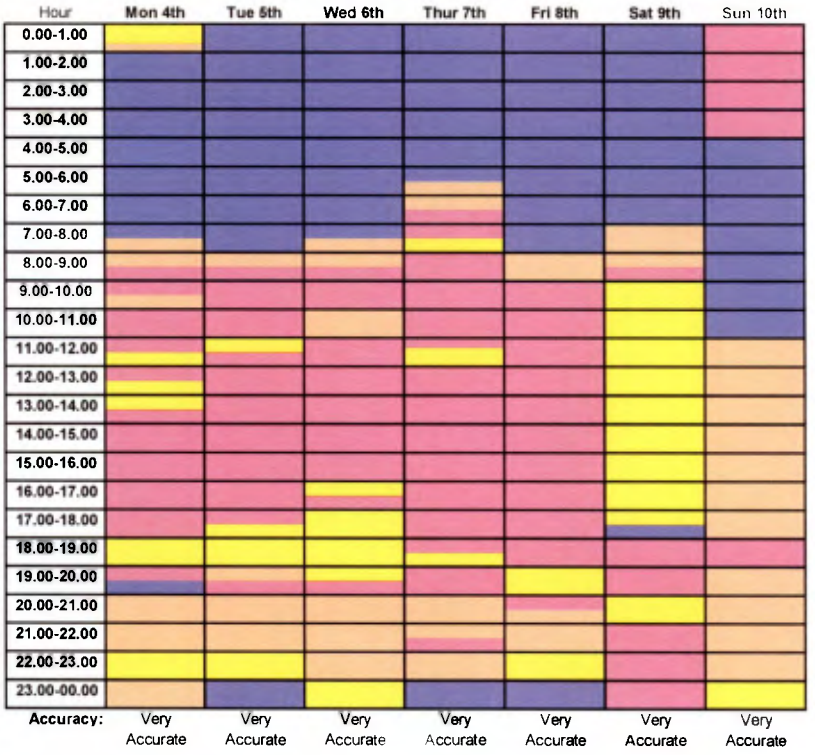
Code	R	D	S	I	L	G	A	V	W	T
Activity	Resting	Domestic	Social	Internet	Leisure	GDP Study	GDP Admin	GDP VLE	Work	Travel
Daily (Minutes)										
Monday	420	150	0	30	110	170	50	30	420	60
Tuesday	540	90	0	0	90	150	0	30	480	60
Wednesday	450	180	0	0	120	120	0	120	390	60
Thursday	390	120	90	0	0	80	0	20	500	240
Friday	540	150	0	0	0	60	0	60	570	60
Saturday	450	90	0	0	0	570	0	0	0	330
Sunday	420	60	540	0	60	60	0	0	0	300
Total Time										
Minutes	3,210	840	630	30	380	1,210	50	260	2,360	1,110
Hours	53.5	14.0	10.5	0.5	6.3	20.2	0.8	4.3	39.3	18.5
% Week	31.8%	8.3%	6.3%	0.3%	3.8%	12.0%	0.5%	2.6%	23.4%	11.0%

KEY

R	RESTING
D	DOMESTIC
S	SOCIAL
I	INTERNET
L	LEISURE
G	GDP STUDY
A	GDP ADMIN
V	GDP VLE
W	WORK
T	TRAVEL

1	Very Accurate
2	Mostly Accurate
3	Representative
4	Inaccurate

GDP WEEKLY TIME
1520 Minutes
25.3 Hours



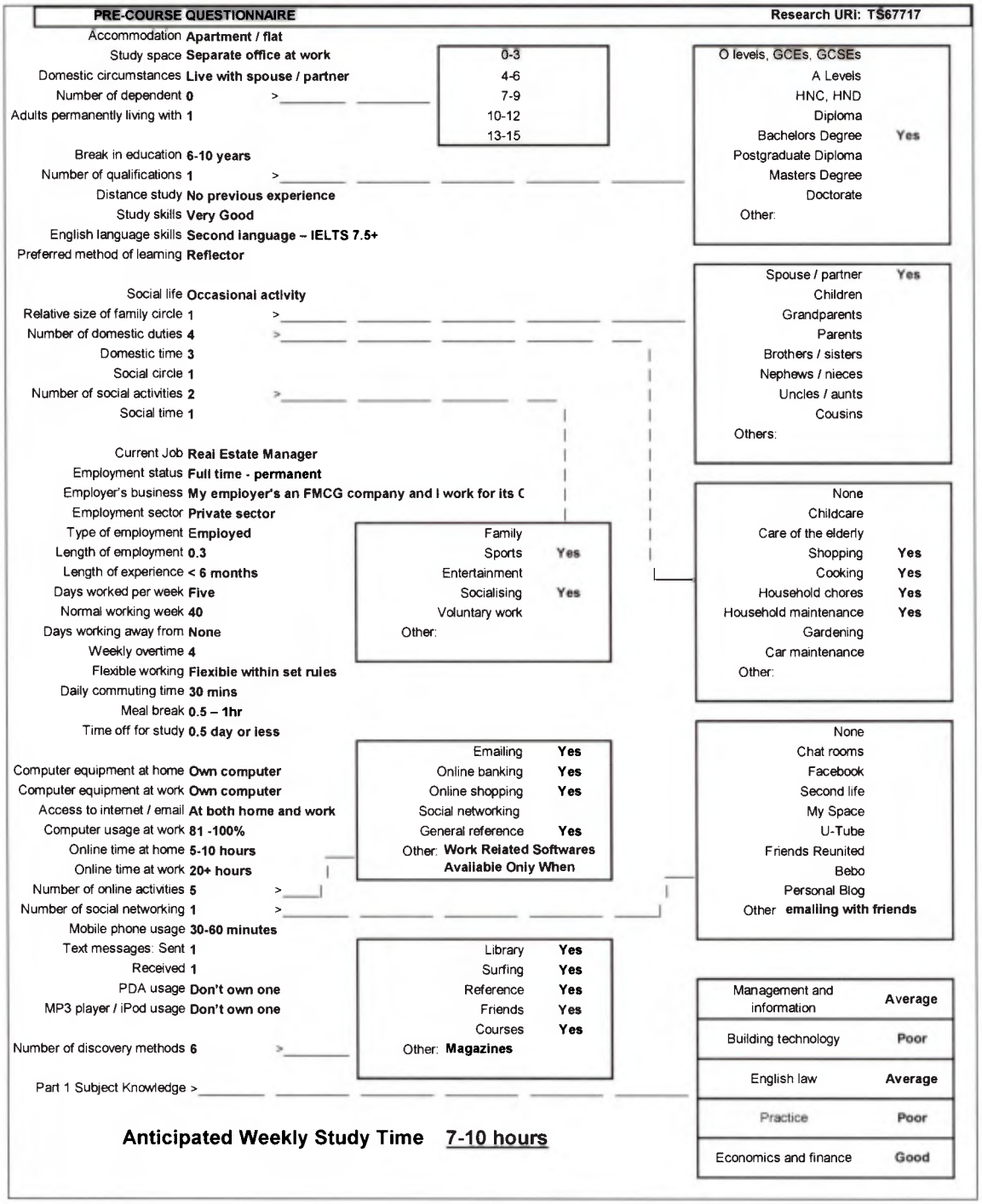
IMC MODULE RESULTS

Assignment	Submitted	Mark	All	Result
1	Yes	56	(62)	Pass
2	Yes	68	(62)	Pass
	Overall Result:	63.2		Merit

STUDY SESSIONS IN WEEK 2

	TOTAL	STUDY	VLE	ADMIN
0 - 20 minutes	4	2	1	1
20 - 30 minutes	8	5	2	1
30 - 40 minutes				
40 - 60 minutes	8	7	1	
60 - 90 minutes	1	1		
90 - 120 minutes	1		1	
120+ minutes	1	1		

Appendix 11: Typical Student Profile



PRE-COURSE QUESTIONNAIRE — **Research URI: TS67717**

Accommodation **Apartment / flat**
Study space **Separate office at work**
Domestic circumstances **Live with spouse / partner**
Number of dependent **0**
Adults permanently living with **1**

Break in education **6-10 years**
Number of qualifications **1**
Distance study **No previous experience**
Study skills **Very Good**
English language skills **Second language – IELTS 7.5+**
Preferred method of learning **Reflector**

Social life **Occasional activity**
Relative size of family circle **1**
Number of domestic duties **4**
Domestic time **3**
Social circle **1**
Number of social activities **2**
Social time **1**

Current Job **Real Estate Manager**
Employment status **Full time - permanent**
Employer's business **My employer's an FMCG company and I work for its C**
Employment sector **Private sector**
Type of employment **Employed**
Length of employment **0.3**
Length of experience **< 6 months**
Days worked per week **Five**
Normal working week **40**
Days working away from **None**
Weekly overtime **4**
Flexible working **Flexible within set rules**
Daily commuting time **30 mins**
Meal break **0.5 – 1hr**
Time off for study **0.5 day or less**

Computer equipment at home **Own computer**
Computer equipment at work **Own computer**
Access to internet / email **At both home and work**
Computer usage at work **81 -100%**
Online time at home **5-10 hours**
Online time at work **20+ hours**
Number of online activities **5**
Number of social networking **1**
Mobile phone usage **30-60 minutes**
Text messages: Sent **1**
Received **1**
PDA usage **Don't own one**
MP3 player / iPod usage **Don't own one**

Number of discovery methods **6**

Part 1 Subject Knowledge >

0-3	
4-6	
7-9	
10-12	
13-15	

O levels, GCEs, GCSEs	
A Levels	
HNC, HND	
Diploma	
Bachelors Degree	Yes
Postgraduate Diploma	
Masters Degree	
Doctorate	
Other:	

Spouse / partner	Yes
Children	
Grandparents	
Parents	
Brothers / sisters	
Nephews / nieces	
Uncles / aunts	
Cousins	
Others:	

Family	
Sports	Yes
Entertainment	
Socialising	Yes
Voluntary work	
Other:	

None	
Childcare	
Care of the elderly	
Shopping	Yes
Cooking	Yes
Household chores	Yes
Household maintenance	Yes
Gardening	
Car maintenance	
Other:	

Emailing	Yes
Online banking	Yes
Online shopping	Yes
Social networking	
General reference	Yes
Other:	Work Related Softwares Availabie Only When

None	
Chat rooms	
Facebook	
Second life	
My Space	
U-Tube	
Friends Reunited	
Bebo	
Personal Blog	
Other	emailing with friends

Library	Yes
Surfing	Yes
Reference	Yes
Friends	Yes
Courses	Yes
Other:	Magazines

Management and information	Average
Building technology	Poor
English law	Average
Practice	Poor
Economics and finance	Good

Anticipated Weekly Study Time **7-10 hours**

Appendix 11: Typical Student Profile

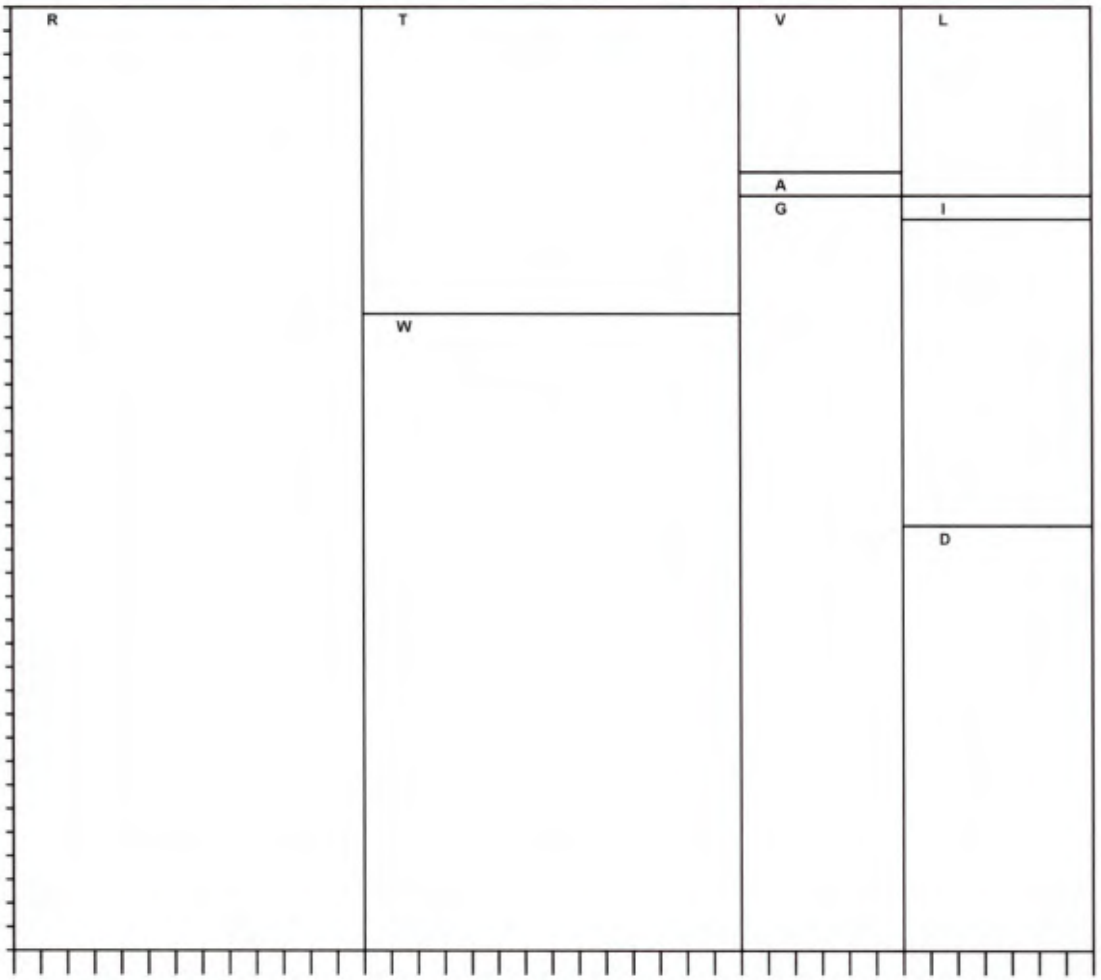
URI: TS67717

		Night 01.00-05.59	Early 06.00-08.59	Morning 09.00-11.59	Lunch 12.00-13.59	Afternoon 14.00-16.59	Dinner 17.00-19.59	Evening 20.00-22.59	Late 23.00-00.59
RESTING	Mon	300	90				30		
	Tue	300	120						120
	Wed	300	90						60
	Thu	270							120
	Fri	300	120						120
	Sat	300	60				30		60
	Sun	120	180	120					
Activity Total		1890 7	660 6	120 1			60 2		480 5
DOMESTIC	Mon		60					90	
	Tue		30				30	30	
	Wed		30	60				90	
	Thu	30	30					60	
	Fri		60					90	
	Sat		90						
	Sun			60					
Activity Total		30 1	300 6	120 2			30 1	360 5	
SOCIAL	Mon								
	Tue								
	Wed								
	Thu							90	
	Fri								
	Sat								
	Sun				60	180	120	180	
Activity Total					60 1	180 1	120 1	270 2	
INTERNET	Mon			30					
	Tue								
	Wed								
	Thu								
	Fri								
	Sat								
	Sun								
Activity Total				30 1					
LEISURE	Mon							30	80
	Tue							90	
	Wed		30					90	
	Thu								
	Fri								
	Sat								
	Sun				60				
Activity Total			30 1		60 1			210 3	80 1
GDP STUDY	Mon				30		60	60	20
	Tue						90	60	
	Wed					30	30		60
	Thu		30	20			30		
	Fri							60	
	Sat			180	120	180	30	60	
	Sun								60
Activity Total			30 1	200 2	150 2	210 2	240 5	240 4	140 3
GDP ADMIN	Mon			30					20
	Tue								
	Wed								
	Thu								
	Fri								
	Sat								
	Sun								
Activity Total				30 1					20 1
GDP VLE (Numbers in blue boxes indicate messages posted in forum)	Mon				30 1	1			
	Tue			30 2			1		
	Wed					1	120 1		
	Thu			20 1					
	Fri						60	1	
	Sat								
	Sun								
Activity Total				50 2	30 1		180 2		
WORK	Mon			120	60	180	60		
	Tue			150	120	180	30		
	Wed			120	120	150			
	Thu		30	140	120	180	30		
	Fri			150	120	180	120		
	Sat								
	Sun								
Activity Total			30 1	680 5	540 5	870 5	240 4		
TRAVEL	Mon		30				30		
	Tue		30				30		
	Wed		30				30		
	Thu		90				120	30	
	Fri			30				30	
	Sat		30				120	120	60
	Sun	180					60		60
Activity Total		180 1	210 5	30 1			390 6	180 3	120 2

% TIME COMMITMENT — **Research URI: TS67717**

Code	R	D	S	I	L	G	A	V	W	T
Activity	Resting	Domestic	Social	Internet	Leisure	Study	Admin	VLE	Work	Travel
Commitment	Resting	Other				GDP			Work	
Daily (Minutes)										
Monday	420	150	0	30	110	170	50	30	420	60
Tuesday	540	90	0	0	90	150	0	30	480	60
Wednesday	450	180	0	0	120	120	0	120	390	60
Thursday	390	120	90	0	0	80	0	20	500	240
Friday	540	150	0	0	0	60	0	60	570	60
Saturday	450	90	0	0	0	570	0	0	0	330
Sunday	420	60	540	0	60	60	0	0	0	300
Total Time										
Minutes	3,210	840	630	30	380	1,210	50	260	2,360	1,110
Hours	53.5	14.0	10.5	0.5	6.3	20.2	0.8	4.3	39.3	18.5
% Week	31.8%	8.3%	6.3%	0.3%	3.8%	12.0%	0.5%	2.6%	23.4%	11.0%

PROPORTIONAL WEEKLY TIME COMMITMENT (plotted with 2.5% horizontal & vertical intervals)



Resting (R) - 31.8%	Work (W,T) - 34.4%	GDP (G,V,A) - 15.1%	Other (D,S,L,I) - 18.7%
	Work (W) - 23.4%	Study (G) - 12%	Domestic (D) - 8.3%
	Travel (T) - 11%	VLE (V) - 2.6%	Social (S) - 6.3%
		Admin (A) - 0.5%	Leisure (L) - 3.8%
			Internet (I) - 0.3%

SUMMARY OF TIME ACTIVITY — **Research URI: TS67717**

DIARY ACTIVITY TIME

ACTIVITY 2.3			ACTIVITY 2.4			ACTIVITY 2.5			ACTIVITY 2.6			ACTIVITY 2.7		
Anticipated	*60*	Mins	*Anticipated*	*180*	Mins	*Anticipated*	*180*	Mins	*Anticipated*	*180*	Mins	*Anticipated*	*180*	Mins
Feature	*Act*	*All*	*Feature*	*Act*	*All*	*Feature*	*Act*	*All*	*Feature*	*Act*	*All*	*Feature*	*Act*	*All*
Reading	10	14	Reading	30	27	Reading	30	72	Reading	330	78	Reading	0	55
Reflection	10	11	Reflection	10	20	Reflection	10	22	Reflection	30	25	Reflection	0	33
Notes	0	11	Notes	10	21	Notes	10	24	Notes	0	24	Notes	0	30
Online Res	10	28	Online Res	20	50	Online Res	0	22	Online Res	0	25	Online Res	0	39
Quiz	0	15	Quiz	0	21	Quiz	10	25	Quiz	0	21	Quiz	0	27
VLE Part'n	5	14	VLE Part'n	20	25	VLE Part'n	0	19	VLE Part'n	0	26	VLE Part'n	0	21
Total	35	93	Total	90	164	Total	60	184	Total	360	199	Total	0	205
Difference	-25	58	Difference	-90	74	Difference	-120	124	Difference	180	-161	Difference	-180	205

VLE PARTICIPATION

	1.1	1.3	1.4	2.2	2.4	2.6	ASN 1	2.1	2.13	3.1	3.4	ASN 2
Posted	0	0	0	0	0	0	0	0	0	0	0	1
Replies	3	2	2	5	2	2	2	4	3	6	4	1
Total	3	2	2	5	2	2	2	4	3	6	4	2
					Check	Mismatch						

General	1 Posted	4 Replies
Absence	1 Posted	0 Replies

BLACKBOARD ACCESS

	04 Feb Hits	05 Feb Hits	06 Feb Hits	07 Feb Hits	08 Feb Hits	09 Feb Hits	10 Feb Hits	Wk Total Hits	Ave Hits per Day
HOME									
All	8.1	6.2	5.3	5.5	4.9	1.4	2.7	34.0	23.4
0701776	0	3	0	0	0	0	0	3	3
IMC									
All	31	29	26	22	16	8	18	149	31
0701776	88	85	85	40	31	0	0	329	66

F2F Attendance (Reading):

Attended

BLACKBOARD AREA ACCESS

	HOME Welcome, Prog Details, F2F, Exams, Modules	The Club	Announcements	IMC Guidance, Resources, Assessment	IMC Tutor Groups	IMC Open Discussion	HOME & IMC Staff Information, Personal Info
All	6.7	26.7	0.3	9.3	124.3	15.2	0.8
0701776	3	0	0	13	306	9	1

DIARY VLE ACCESS

	04 Feb Mins	05 Feb Mins	06 Feb Mins	07 Feb Mins	08 Feb Mins	09 Feb Mins	10 Feb Mins	Wk Total Mins
0701776	30	30	120	20	60	0	0	260
	Very Accurate	Very Accurate	Very Accurate	Very Accurate	Very Accurate	Very Accurate	Very Accurate	
	Check	Check	Check	Check	Check	Mismatch	Mismatch	

VLE FORUM POSTINGS (No by Date)

22 Jan	23 Jan	24 Jan	25 Jan	26 Jan	27 Jan	28 Jan	29 Jan	30 Jan	31 Jan	01 Feb	02 Feb	03 Feb	04 Feb	05 Feb	06 Feb	07 Feb	08 Feb	09 Feb	10 Feb	11 Feb	12 Feb	13 Feb
			1			1				2			2	3	2	1	1			1		1

14 Feb	15 Feb	16 Feb	17 Feb	18 Feb	19 Feb	20 Feb	21 Feb	22 Feb	23 Feb	24 Feb	25 Feb	26 Feb	27 Feb	28 Feb	29 Feb	01 Mar	02 Mar	03 Mar	04 Mar	05 Mar	06 Mar	07 Mar
3							3	3		2		3				5	2		4	2		1

08 Mar	09 Mar	10 Mar	11 Mar	12 Mar	13 Mar	14 Mar	15 Mar	16 Mar	17 Mar	18 Mar	19 Mar	20 Mar	21 Mar	22 Mar	23 Mar	24 Mar	25 Mar	26 Mar	27 Mar	28 Mar	29 Mar	30 Mar

VLE SCHEDULED PARTICIPATION

	1.1	1.3	1.4	2.2	2.4	2.6	ASN 1	2.1	2.13	3.1	3.4	ASN 2
>1 Wk Early												
Wk Before	1											2
On Schedule	1	2			2		2	4	2	2	2	
Wk Late	1		2	4		2			1	4	2	
>1 Wk Late				1								

Appendix 11: Typical Student Profile

POST IMC QUESTIONNAIRE — **Research URI: TS67717**

Weekly time **As expected**

Time Pressures **4** >

Unforeseen events: Problems in the family and their need for me to be there for them. Allergic attack when I had to spend time recovering instead of the planned study time.

Not applicable	
Health demands	**Yes**
Work demands	**Yes**
Study demands	
Course Demands	
Domestic demands	
Social demands	**Yes**
Leisure demands	
Other (detail to left)	

Face to Face **Attended**
>>>

Time Management **Reasonably well**

Regular study time **11 – 14 Hours**

Best time of day **Early Evening (17.00-19.00)**

Future study changes **1** >

Continuous study **40 – 60 minutes**

Number of study breaks **One**

Length of study breaks **10 minutes**

Reason for breaks in study **5** >

No change	**Yes**
Reduce social	
Reduce leisure	
Reduce domestic	
Commuting	
Work Gaps	
Impossible	

Other
Ad hoc changes versus my planned study time

Pre / post test quizzes **Not very worthwhile**
>>> The pretests were unreasonable as they asked about stuff I would only know after I read the study material - what's the point then? To test how much I know before I start? Pretty useless for me, as I come from outside the industry

Ice-breaker **Reasonably worthwhile**
>>> One can't remember all and anyway do not meet others, so it's not the best use of time, though warms us up and gives some sense of belonging to a group

Self study/research **Too short – < 1 hour**
>>> Pretty varied - sometimes way too short, sometimes way too much

To rest eyes	**Yes**
To rest brain	**Yes**
To drink	**Yes**
To smoke	
Use toilet	**Yes**
Dependent care	

Other
to change position, to fix lost connection, to setup printer, to answer a call

Knowledge test quiz **About right**
>>>

Assignment time (hrs)

Assignment 1	**20**
Assignment 2	**24**

Case study **Too short – < 1 hour**
>>> See comment above about varied experience

Study skills
Referred to once or twice

Case study + quizzes **Too short – < 1 hour**
>>> see feedback above

Overall learning
Most

Web research **Too long – < 1 hour**
>>>

Future Participation
I AGREE

Participation - online **Posted original read others and posted replies**
>>>

Reason - non-participation **Full participation**
>>>

Suggested changes
>>> I'm a visual type, podcasts/audio is no use for me, they get me nervous and I lose concentration. I commute 15 mins each way by car, so there's no need for utilisation. List of additional books would be useful.

Further Comments
>>>

Appendix 11: Typical Student Profile

POST TECH QUESTIONNAIRE — **Research URI: TS67717**

Current Status **Continuing**
Time Management **Reasonably well**
Weekly time **As expected**

Assignment time (hrs)
Assignment 1 **36**
Assignment 2 **36**

Overall learning **Most**

What changes should the College make? >>

1) Give us a week break between modules - it's great that the next year will have it, but it doesn't make the existing students' life easier. I wouldn't mind starting two weeks earlier (mid Jan) and finish 2 weeks later (beg Dec) in exchange of some recovery time during the year. 2) Having the same amount of study and learning activities during the week preceeding the assignment submission deadline as on any other week puts extra pressure on the students, who still have the same amount of time after working hours. 3) Clear task description or mock-up example sometimes would be useful, as many of us spent a lot of time trying to clarify what was needed for task 4 in assignment 2. Time spent asking the tutor and other students. As per the postings on the club general discussion, people spent an unnecessarily lot of time trying to figure out what was required and what other tutors said. Our tutor's response wasn't very helpful.

Time Pressures - Course **3** >>

Academically difficult	
Materials are difficult	
More background	**Yes**
Lacks relevance	
Assignment expection	**Yes**
Fallen behind	
Other	**Yes**

>> I am a relatively slow reader and probably I'm not the only one. Having to read hundreds of pages during a week, then browse the internet, then read others' contributions takes up a lot of time and hence I can hardly ever post my messages on time, as I spend the first half of the week if not the whole week to read the required material before I can post a message on VLE for that given week.

Time Pressures - Personal **1** >>

Workload and pace	**Yes**
No quiet time	
Poor IT access	
Study skills	
English language	
Other	

Time Pressures - Home / Domestic **6** >>

Demands at home	**Yes**
Need more home support	**Yes**
Moved home	**Yes**
New baby	
Holiday	
Own Illness	**Yes**
Family illness	**Yes**
Bereavement	
Other	**Yes**

>> in court, his divorce isn't exactly an easy and peaceful one, he has just lost his job and as a consequence suffers from various stress related illnasses. I moved and refurbished my flat during the autumn of 2007, started a new job, my mum's terminally ill and my family is in another country, so remotely demanding my attention and mental/financial

Time Pressures - Work **4** >>

Demands at work	**Yes**
Need work support	**Yes**
New job	**Yes**
Redundancy	
Job hunting	
Other	**Yes**

>> See some related points in the previous comment. Further to those, my company doesn't support my studies, so if I have weekday face-to-face school obligations (17 July, 9-10 Sep), I have the options of taking holiday (further reducing my chance for recreation on a proper holiday), report ill or tell a lie.

Unforeseen Events >>

Weekly Time Use for Study

GOP Study	**15**
GOP VLE	**5**
GOP Admin	**0.5**

Weekly Non-Study Time Use

Work Change	**No Change**
Travel Change	**Large Increase**
Domestic Change	**Small Reduction**
Social Change	**Large Reduction**
Leisure Change	**No Change**
Internet Change	**No Change**
Resting Change	**Small Reduction**

Further Comments

I found that the assignment questions are usually not as clear as they should be and we can only guess what is expected (e.g. 4th task in assignment 2 in Technology of Building). As another example, when I thought that I answered the question and, as an extra, I added points from articles found outside our study materials, it turned out that it was expected to add extra knowledge and despite the word count of 400, I should have elaborated on point, x, y and z. The point allocation for many of us didn't feel fair, but as teachers are in the power position, no one dared complain. Time usage - I stopped looking at the "estimated time to completa" figure a long time ago, as it was never the time I ended up spending on the particular task. This figure is someone's estimate of their time, but due to variation among individuals, it has no relevance, so might as well be taken out of the materials.

POST LAW QUESTIONNAIRE Research URI: TS67717

Current Status **Continuing**
Time Management **Reasonably well**
Weekly time **Less time**

Assignment time (hrs)
Assignment 1 **24**
Assignment 2 **22**

Overall learning **Most**

What changes should the College make? >>

Protected Time (Hrs) **2**

Protected Time Problems

Due to the previously described unexpected events and travels scheduled at various times, I found that I could only rely on 2 hours morning study during the weekend, when I woke up, but my boyfriend was still asleep and so I had 2 hours to quietly read. Otherwise I had to be flexible regarding study times.

A student had to finish with the activities in 2 weeks vs the allocated 4 weeks due to his holiday, and then the teacher kept asking us for more feedback in the beginning of the week the activitity was due on - I felt somewhat disheartened that due to my travels I only got to the activity by the end of the week, as if I had been in such a delay. Otherwise the tutor was great and giving appropriate guidance, but maybe they shouldn't urge us to complete, as we do it anyway and we feel the pressure anyway.

Time Pressures - Course **0** >>

Academic Difficulty
Material Difficulty
Background Knowledge
Content Relevance
Assign Misunderstanding
ng Activity Misunderstanding
Falling Behind
Other **Yes**

>> I'm not sure I understand this question and the % marking, so I'd like to give explanation rather than a value above. 1) when I find academically difficult, it increases the time needed, as I need to read the material twice or more slowly than I would normally do - my reading time normally doubles in these cases 2) needing more background knowledge - it happened during every module, especially when preparing the assignments, as I wanted to make

Time Pressures - Personal **0** >>

Workload and Pace
Quiet Study
IT Access
Study Skills
English Language
Other **Yes**

>> I still don't get this % idea, so here I come with comments: 1) workload and pace - it is a lot, can be managed although admittedly it is at the expense of other activities (e.g. social life) 2) quiet periods to find - with a boyfriend around in a small flat, it's sometimes difficult, so time to time I stay in the office to do studying 3) access to computer and internet - no problems experienced 4) better study skills - no problems experienced 5) English

>>

Time Pressures - Home / Domestic **0** >>

Family Problems
Social Problems
Household Problems
Moving Home
Child Care
Adult Care
Holiday
Marriage
Personal Illness
Family Illness
Bereavement
Other **Yes**

>> 1) moving home - it only affected my time during the foundation part of the course, not any more (thankfully) 2) due to the course I don't take a proper holiday until after the Sep F2F and before the exam, so my long weekend holidays (when I need to go home) just slow me down, but I always make sure I catch-up 3) illness - my partner's illness meant that I spent some time helping him instead of just relaxing with him, but I made sure it didn't affect my study time considerably 4) family bereavement - my mum's terminally ill, so it can happen any time, that's why I need to go home time to time for a long weekend to see her

Time Pressures - Work **0** >>

Extra Time
Working Away
New Job
Redundancy
Job Hunting
Other **Yes**

>> 1-2) longer hours and travelling - longer hours do happen, especially with the travelling for work purposes, which happens quite often - it means no hours for social life, resting cut down and also studying cut down...the reduction in studying during those days means an increase during the rest of the week, so overall there might not be a change on a weekly level

Unforeseen Events >>

1) unexpected trip to Moscow, which took up most of a Sunday and then Mon-Tue leaving me to catch-up with work during Wed-Fri, so I lost 6 days of studying as I was exhausted by the time I got to bed those evenings 2) a long weekend visit (and stay at our place) by the parents of my boyfriend, which was followed by a 3 day trip to Warsaw, where evening programs were organised, so yet another 6 day period without much studying

Weekly Time Use for Study

GDP Study **12**
GDP VLE **8**
GDP Admin **0.5**

Weekly Non-Study Time Use

Work Change **Small Increase**
Travel Change **Small Increase**
Domestic Change **No Change**
Social Change **Small Reduction**
Leisure Change **Small Increase**
Internet Change **No Change**
Resting Change **Small Reduction**

Further Comments
no further comments to make

POST PRACTICE QUESTIONNAIRE Research URI: TS67717

Current Status **Continuing**
Time Management **Poorly**
Weekly time **Lot less time**

F2F Reading - July **Reasonably Beneficial**
Reading - September **Very beneficial**
Hong Kong - August **Absent**

Assignment time (hrs)
Assignment 1 **20**
Assignment 2 **22**

Overall learning **Most**

Improving study
Podcasts: **No help**
Videocasts: **No help**
Interactive: **Optional**

What changes should the College make? >>

Our tutor wasn't very helpful in explaining matters raised or even responding to messages, in several cases we were discussing/guessing for a week before she even wrote something, which still left us guessing and we had to ask back for further explanation. In several cases she did not respond at all. When assessing the assignments, she hardly made any comments and whatever she did write was illegible. After I found out on The Club forum that others felt the same, I sent her an email separately asking if she had the comments saved and if she could possibly send them to me typed, so I could learn from the comments. She never replied. On the Sep face-to-face I asked one of the ladies helping at the registration table to follow up with my tutor and ask her to either write her comments using capital letters or type them. As expected, nothing happened, the second assignment came back with hardly any comments that are illegible again. It would be useful to have tutors who take time to actually respond and in a manner that helped us as well as writing adequate and legible comments for our assignments. The college may assess the suitability of the tutors time to time to ensure consistent quality.

Time Pressures - Course **7** >>

Academically difficult	**80%**
Materials are difficult	**80%**
More background	**80%**
Lacks relevance	**60%**
Assign misunderstanding	**60%**
Activity misunderstanding	**80%**
Falling behind	**80%**
Other	**Yes**

>> I'm still not sure, how this % works, so let me make some comments. I found the valuation bit quite difficult and it didn't help that the study materials weren't always consistent or clear. As mentioned, unfortunately our tutor didn't help much either. We were guessing quite a lot of times what a learning activity or assignment question wanted and found the ethics part way too expanded without direct relevance or help in our daily jobs. People complained about the same things, so it left us feel that theory is one thing, practice is another and as no solution was offered, this part felt a bit excessive.

Time Pressures - Personal **1** >>

Workload and pace	
No quiet time	**20%**
Poor IT access	
Study skills	
English language	
Other	**Yes**

>> I travelled way more than anticipated and my mum passed away shortly before the second assignment, therefore I was hardly able to find the necessary time for studying during this last module.

Time Pressures - Home / Domestic **2** >>

Family problems	
Social problems	
Household problems	
Moving home	
Child care	
Adult care	
Holiday	
Marriage	
Personal illness	
Family illness	**80%**
Bereavement	**20%**
Other	**Yes**

>> see above about my mum

Time Pressures - Work **2** >>

Extra time	**80%**
Working away	**20%**
New job	
Redundancy	
Job hunting	
Other	**Yes**

>> I made some comments about travelling in the absence field on VLE during the last module, but I don't think it made any difference when it came to marking, so I'm not quite sure whether it makes sense at all to have that field?

Unforeseen Events >>

as above - travelling more than anticipated (every week 2-3 days) and mum passing away before the 2nd assignment

Weekly Time Use for Study

GDP Study	**3.5**
GDP VLE	**1.5**
GDP Admin	**0**

Protected study time / week **5**

Weekly Non-Study Time

Work Change	**Small Increase**
Travel Change	**Large Increase**
Domestic Change	**No Change**
Social Change	**Small Reduction**
Leisure Change	**Large Reduction**
Internet Change	**Small Reduction**
Resting Change	**Small Reduction**

Finding Extra Time (Ranking)

Unpaid leave	**8**
Annual leave	**7**
Reduced social	
Reduced leisure	**1**
Reduced domestic	**5**
Work less	**6**
Reduce rest	**3**
Other	**4**

POST PRACTICE QUESTIONNAIRE **Research URI: TS67717**

HOLIDAY

Holiday **1-3 days**
Holiday destination **Abroad** >> Other

Holiday study **VLE**

Creating Holiday Time

Got ahead before
Caught up after **Yes**
Fell behind
Used extensions
Other

ASSIGNMENT EXTENSIONS

Number of extensions **1**

	IMC	Tech	Law	Practice
Assignment 1				
Assignment 2				Yes

EXAM PREPARATION

Introduction to Law **Reasonably well**
Fundamentals of Practice **Reasonably well**

Exam revision time **7-9 days**

Creating Revision Time

Annual leave **Yes**
Unpaid leave
Study leave
Reduce social **Yes**
Reduce domestic
Reduce leisure **Yes**
Reduce rest
Other

Follow Up Interview

Agreement **Yes**

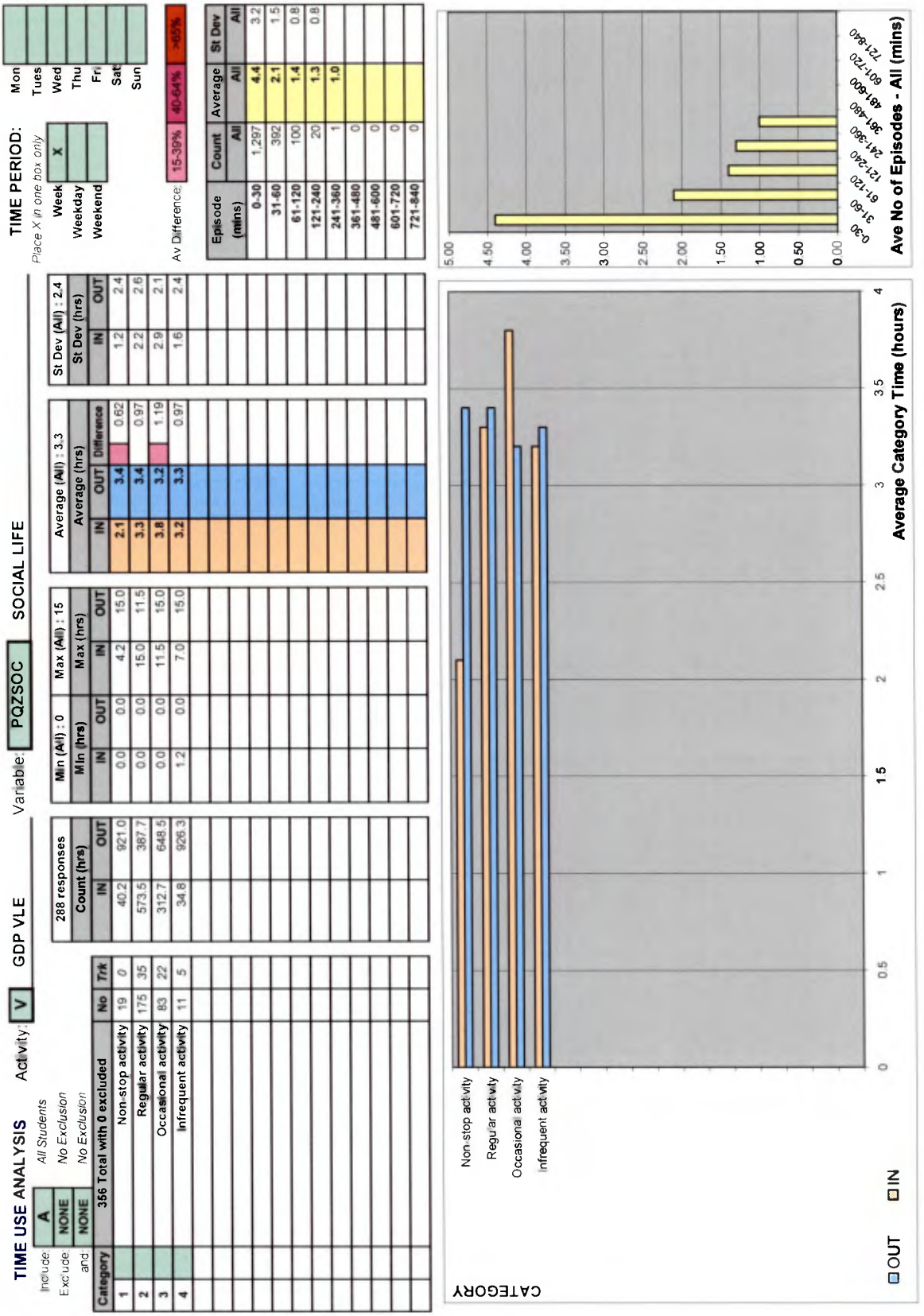
Contact Telephone No **+44 (0) 7962 851632**

Best Time of Day **evening (after 6pm)**

Further Comments

just as a summary from previous comments: - ethics topic is too expansive without much useful outcome - My Tutor's unresponsiveness, unclear comments and illegible handwriting might need to be reviewed - role of the absence field - unavailability considered / reflected in the marking in any way? - unexpected travels and family tragedy made it difficult to study a subject (valuation) with materials confusing/unclear at times - more practice examples and solutions would be useful Additionally, I've got a new lightweight laptop at work, and this one doesn't have a CD drive, while my home laptop with the CD drive got infected and broke down and still hasn't been fixed. My boyfriend changed his laptop to an Apple, which cannot handle the software of the self-check CD, so I wondered if the self-test could be available from the VLE instead of a CD?

APPENDIX 12: Typical Disaggregate Analysis



Note: **IN** displays the values recorded by students whose response to the question (social life) fell within the particular category (e.g. non-stop). **OUT** displays the values for those students whose response fell outside the category (e.g. regular, occasional, infrequent).

APPENDIX 13: Summary Data – Phase 1

PRE-COURSE QUESTIONNAIRE RESPONSES

Refer to Appendix 3 for Questions

Total Possible: 705 Total Returned: 518 Response Rate: 73.5%

Notes: Number of responses to each question and answer shown in brackets.
Question percentages are calculated against the total number returned.
Answer percentages calculated against the total responses to the particular question.
Questions where multiple answers possible are marked (M).

STUDENTS

Gender	Male	Female				
97% (504)	65% (327)	35% (177)				
Age Range	18-25	26-32	33-39	40-46	47+	
95% (494)	40% (199)	43% (211)	12% (60)	5% (24)	0% (0)	
Learning disability	Yes	No				
98% (495)	3% (16)	97% (479)				
Physical disability	Yes	No				
97% (502)	1% (6)	99% (496)				

INTERNATIONAL STUDENTS

Nationality	Nationalities					
96% (497)	39					
Location	Global					
97% (501)	15					
English language skills	First language	2nd language IELTS 7.5+	2nd language IELTS 7.0	2nd language IELTS 6.5	2nd language IELTS 6.0	2nd language IELTS <6.0
97% (500)	84% (418)	3% (17)	4% (22)	5% (23)	3% (14)	1% (6)
Expatriate Status	British in UK	British Expat Overseas	Non-UK at Home	Non-UK Expat in UK	Non-UK Expat Overseas	
70% (493)	76% (375)	2% (10)	8% (39)	9% (43)	5% (26)	

NB: Interpreted from nationality and location

MOTIVATION AND PRIOR KNOWLEDGE

Motivation	RICS / HKIS recognision	Masters degree	Extending knowledge	Other		
97% (503)	81% (406)	8% (40)	8% (39)	4% (18)		
Management and information processes	Excellent	Good	Average	Poor	None	
81% (417)	3% (12)	35% (148)	58% (241)	0% (0)	4% (16)	
Building technology	Excellent	Good	Average	Poor	None	
96% (495)	5% (24)	22% (110)	33% (161)	33% (163)	7% (37)	
English law	Excellent	Good	Average	Poor	None	
95% (493)	3% (16)	15% (73)	38% (189)	35% (174)	8% (41)	
Practice	Excellent	Good	Average	Poor	None	
95% (493)	3% (15)	24% (116)	39% (194)	25% (124)	9% (44)	

ACADEMIC BACKGROUND

Foundation module	Yes	No							
100% (518)	63% (328)	37% (190)							
Qualifications (M)	O's, GCEs, GCSEs	A's or equivalent	HNC, HND or equivalent	Diploma	Bachelors Degree	Postgrad Diploma	Masters Degree	Doctorate	Other
97% (504)	78% (394)	75% (376)	9% (44)	13% (68)	93% (467)	6% (31)	11% (57)	0% (0)	5% (27)
Break in education	< 1 year	1-2 years	2-4 years	4-6 years	6-10 years	10-15 years	15+ years		
79% (411)	4% (17)	27% (109)	29% (120)	17% (68)	14% (56)	6% (25)	4% (16)		

Distance study	No previous experience	Previous experience					
97% (502)	88% (440)	12% (62)					
Study skills	Excellent	Very Good	Good	Average	Below Average	Poor	
97% (503)	2% (11)	21% (106)	47% (234)	29% (144)	1% (6)	0% (2)	
Preferred style of	Activist	Reflector	Theorist	Pragmatist			
97% (503)	23% (114)	21% (104)	30% (152)	26% (133)			
Discovering new knowledge (M)	Books in a library	Surfing the internet	Ref'n books at home	Friends / family	Short courses	Other	
96% (495)	56% (278)	99% (488)	54% (267)	77% (381)	22% (109)	6% (28)	

OOMESTIC ENVIRONMENT

Accommodation	Parental home	Bed-sit	Apartment / flat	House	Hostel	Other					
97% (504)	22% (110)	2% (8)	33% (167)	42% (212)	0% (1)	1% (6)					
Study space	Separate room at home	Shared room at home	Separate office at work	Shared office at work	Other						
97% (503)	60% (303)	23% (116)	3% (14)	11% (54)	3% (16)						
Domestic circumstances	Live alone	Live with parents	Live with spouse / partner								
96% (497)	22% (107)	25% (123)	54% (267)								
Dependent children (M)	Aged 0-3	Aged 4-6	Aged 7-9	Aged 10-12	Aged 13-15						
14% (72)	56% (40)	36% (26)	32% (23)	13% (9)	19% (14)						
Adults living with student	1	2	3	4	5	6	7	8	9	10	
82% (423)	60% (252)	20% (86)	13% (54)	6% (24)	1% (5)	0% (0)	0% (1)	0% (1)	0% (0)	0% (0)	
Family circle	Spouse / partner	Children	Grandparents	Parents	Brothers / sisters	Nephew s / nieces	Uncles / aunts	Cous ns	Other		
88% (457)	68% (311)	15% (70)	10% (47)	64% (293)	47% (215)	8% (37)	9% (39)	7% (30)	4% (17)		
Domestic duties	None	Childcare	Care of the elderly	Shopping	Cooking	Household chores	Household maintenance	Gardening	Car maintenance	Other	
96% (495)	7% (34)	12% (58)	5% (23)	72% (356)	72% (358)	81% (400)	47% (231)	26% (131)	35% (174)	3% (15)	
Domestic hours / day	Average	Max	Min								
91% (473)	2.3	60.0	0.0								

SOCIAL WORLD

Social life intensity	Non-stop activity	Regular activity	Occasional activity	Infrequent activity							
97% (501)	10% (48)	56% (283)	29% (147)	5% (23)							
No in Social circle	1	2	3	4	5	6	7	8	9	10	
92% (478)	5% (23)	13% (61)	8% (40)	11% (53)	17% (83)	9% (41)	2% (11)	4% (19)	0% (1)	12% (59)	
	11	12	13	14	15	16	17	18	19	20	
	0% 0	2% (11)	0% (0)	0% (1)	5% (22)	0% (0)	0% (1)	0% (1)	0% (0)	4% (17)	

Max	60
Average	7.0

Social activities (M) 95% (490)	Family 48% (236)	Sports 69% (337)	Entertainment 52% (254)	Socialising 79% (385)	Voluntary work 5% (23)	Other 7% (34)											
Social hours / day 92% (474)	Average 2.8	Max 40.0	Min 0.0														
EMPLOYMENT																	
Nature of employer's business 96% (498)	Not working 4% (18)	Agency 6% (28)	Architecture 1% (5)	Building maintenance 1% (5)	Building services 0% (2)	Building surveying 8% (38)	Central or local gov't 6% (29)	Civil engineering 2% (9)	Commercial property 9% (46)	Construction 7% (37)	Utilities 1% (5)						
	Environment 1% (4)	Facilities management 0% (2)	Housing 2% (11)	Investment and finance 1% (4)	Planning and development 1% (7)	Project management 4% (18)	Property development 5% (24)	Property management 6% (29)	Quantity surveying 18% (91)	Rural property 3% (17)	Valuation 7% (37)	Other 6% (32)					
Sector 94% (489)	Public sector 24% (117)	Private sector 76% (372)															
Current Job 93% (483)	Range of titles from trainee to director																
Type of employment 96% (498)	Employed 94% (467)	Self-employed 4% (20)	Not employed 2% (11)														
Length of employment (years) 87% (450)	Average 1.9	Max 30.0	Min 0.0														
Length of experience 83% (428)	< 6 months 5% (22)	6-12 months 18% (75)	1-3 years 35% (149)	3-6 years 25% (105)	6-10 years 9% (40)	10-15 years 4% (17)	15+ years 5% (20)										
Employment status 95% (492)	Full time - permanent 90% (442)	Part time - permanent 2% (12)	Short term contract 1% (4)	Long term contract 4% (21)	Other 3% (13)												
Days worked per week 94% (489)	One 1% (3)	Two 0% (0)	Three 1% (4)	Four 3% (17)	Five 85% (415)	Six 9% (43)	Seven 1% (7)										
Normal working hours / week 91% (472)	Average 37.4	Max 60.0	Min 0.0														
Days away from home 93% (481)	None 88% (421)	One 6% (30)	Two 3% (14)	Three 1% (4)	Four 1% (4)	Five + 2% (8)											
Overtime hours / week 80% (413)	Average 4.0	Max 42.0	Min 0.0														
Flexible working 93% (484)	Fixed hours 54% (262)	Flexible by agreement 21% (100)	Flexible within set rules 19% (94)	Fully flexible (no rules) 6% (28)													
Daily 2-way commuting time (minutes) 93% (482)	Average 71.0	Max 240.0	Min 0.0														
Meal break 73% (378)	< 0.5 hr 8% (30)	0.5 – 1hr 83% (314)	1 hr + 9% (34)														

Time off for study	0.5 day or less	1 day	1.5 days	2 days	More than 2 days					
91% (470)	86% (405)	9% (40)	1% (6)	1% (6)	3% (13)					

ONLINE TIME AND TECHNOLOGY

Computer equipment at home	No computer	Own computer	Shared family computer							
96% (495)	2% (10)	81% (400)	17% (85)							
Computer equipment at work	No computer	Own computer	Shared work computer							
94% (488)	2% (12)	93% (453)	5% (23)							
Access to internet / email	No access at home or work	At home only	At work only	At both home and work						
96% (496)	0% (0)	8% (41)	7% (36)	84% (419)						
Percentage computer usage at work	Zero	0 – 20%	21 - 40%	41 -60%	61 -80%	81 -100%				
95% (490)	2% (10)	4% (21)	7% (36)	17% (84)	33% (164)	36% (175)				
Online time at home	< 1 hour	1-3 hours	3-5 hours	5-10 hours	10-15 hours	15-20 hours	20+ hours			
88% (456)	6% (28)	30% (137)	21% (96)	25% (113)	10% (46)	5% (25)	2% (11)			
Online time at work	< 1 hour	1-3 hours	3-5 hours	5-10 hours	10-15 hours	15-20 hours	20+ hours			
81% (420)	8% (33)	31% (132)	19% (79)	18% (74)	10% (42)	6% (26)	8% (34)			
Online activity	Emailing	Online banking	Online shopping	Social networking	General reference	Other				
96% (496)	97% (483)	67% (331)	42% (206)	54% (268)	89% (442)	7% (35)				
Social networking sites (M)	None	Chat rooms	Facebook	Second life	My Space	U-Tube	Friends Reunited	Bebo	Personal Blog	Other
93% (481)	36% (173)	9% (44)	54% (258)	0% (1)	3% (15)	11% (55)	2% (11)	2% (9)	1% (7)	4% (19)
Mobile phone use	Don't use one	Not every day	<30 minutes	30-60 minutes	1-2 hours	2-4 hours	4+ hours			
95% (493)	1% (4)	9% (42)	65% (321)	29% (143)	12% (57)	3% (17)	2% (8)			
Text messages		Texts Sent				Texts Received				
91% (472)	Average	Max	Min		Average	Max	Min			
	6.0	50.0	0.0		6.3	70.0	0.0			
PDA use	Don't own	Not every day	<30 minutes	30-60 minutes	1-2 hours	2-4 hours	4+ hours			
94% (489)	89% (433)	4% (18)	11% (55)	2% (9)	0% (2)	0% (1)	1% (3)			
MP3 player / iPod use	Don't own	Not every day	<30 minutes	30-60 minutes	1-2 hours	2-4 hours	4+ hours			
96% (495)	36% (179)	34% (166)	22% (107)	13% (65)	4% (20)	2% (10)	0% (1)			

PRE-COURSE ANTICIPATED TIME

Anticipated study time	1-3 hours	4-6 hours	7-10 hours	11-14 hours	15-18 hours	19+ hours
96% (495)	8% (38)	23% (115)	36% (179)	24% (121)	7% (36)	1% (6)

SUMMARY OF AVERAGE DIARY TIMES

Refer to Appendix 4 for Sample Diary

Total Possible: 470 Total Returned: 363 Response Rate: 77.2%

DIARY TIME COMMITMENT

Code	R	D	S	I	L	G	A	V	W	T
Activity	Resting	Domestic	Social	Internet	Leisure	Study	Admin	VLE	Work	Travel
	Rest	Non-Work Activity				GDP Study Activity			Work Activity	
Daily (Minutes)										
Monday	491	123	33	28	75	88	13	33	469	89
Tuesday	491	118	43	25	76	89	9	32	473	85
Wednesday	494	111	50	23	75	92	6	28	475	85
Thursday	486	114	53	24	83	88	7	27	468	90
Friday	476	112	121	20	98	77	19	21	414	83
Saturday	512	131	226	18	183	196	85	18	31	40
Sunday	594	168	151	27	217	178	19	34	30	22
Total Time										
Minutes	3544	877	677	165	807	808	158	193	2360	494
Hours	59.07	14.62	11.28	2.75	13.45	13.47	2.63	3.22	39.33	8.23
% Week	35.1%	8.7%	6.7%	1.6%	8.0%	8.0%	1.6%	1.9%	23.4%	4.9%

DIARY AVERAGE HOURS BY LOCATION AND FACE-TO-FACE ATTENDANCE

RESTING	M	Tu	W	Th	F	Sa	Su	Week	Weekday	Weekend
UK: no f2f	8.34	8.29	8.38	8.19	7.92	9.18	10.38	8.54	8.23	9.78
UK: with f2f	7.94	8.06	8.07	8.14	7.99	7.62	9.82	8.16	8.04	8.72
Non-UK: no f2f	7.44	7.44	7.52	7.35	8.79	9.06	8.97	8.08	7.71	9.02
Global	**8.14**	**8.15**	**8.21**	**8.10**	**8.02**	**8.70**	**10.09**	**8.39**	**8.13**	**9.39**

DOMESTIC	M	Tu	W	Th	F	Sa	Su	Week	Weekday	Weekend
UK: no f2f	2.00	1.96	1.83	1.84	1.86	2.73	2.85	2.03	1.90	2.79
UK: with f2f	2.25	2.09	2.08	2.22	2.12	1.65	3.53	2.15	2.15	2.59
Non-UK: no f2f	2.33	2.32	2.31	2.48	3.02	2.75	2.90	2.38	2.49	2.82
Global	**2.10**	**2.03**	**1.94**	**2.01**	**2.03**	**2.41**	**3.06**	**2.10**	**2.02**	**2.73**

SOCIAL	M	Tu	W	Th	F	Sa	Su	Week	Weekday	Weekend
UK: no f2f	1.72	1.93	1.97	2.21	3.60	5.62	3.86	1.77	2.29	4.74
UK: with f2f	1.97	2.28	2.26	2.06	2.92	3.81	3.87	1.47	2.30	3.84
Non-UK: no f2f	1.57	1.57	2.32	3.29	3.31	4.99	2.97	1.93	2.41	3.98
Global	**1.77**	**1.98**	**2.09**	**2.33**	**3.40**	**5.08**	**3.80**	**1.70**	**2.31**	**4.44**

INTERNET	M	Tu	W	Th	F	Sa	Su	Week	Weekday	Weekend
UK: no f2f	0.79	0.81	0.83	0.82	0.74	1.08	1.12	0.50	0.80	1.10
UK: with f2f	0.81	0.78	0.77	0.68	0.78	0.61	0.90	0.40	0.77	0.76
Non-UK: no f2f	0.80	0.87	0.91	0.93	0.94	0.97	0.76	0.52	0.89	0.86
Global	**0.80**	**0.80**	**0.82**	**0.78**	**0.78**	**1.01**	**1.02**	**0.47**	**0.80**	**1.01**

LEISURE	M	Tu	W	Th	F	Sa	Su	Week	Weekday	Weekend
UK: no f2f	1.94	1.83	1.84	1.99	2.83	5.16	5.13	2.28	2.09	5.15
UK: with f2f	1.57	1.80	1.83	2.35	2.20	2.34	3.73	1.62	1.95	3.03
Non-UK: no f2f	1.49	1.33	1.55	1.46	2.48	1.95	2.00	1.20	1.66	1.97
Global	**1.78**	**1.78**	**1.82**	**2.05**	**2.61**	**4.29**	**4.48**	**2.00**	**2.01**	**4.39**

GDP STUDY	M	Tu	W	Th	F	Sa	Su	Week	Weekday	Weekend
UK: no f2f	1.79	1.83	1.98	1.96	2.11	3.58	3.48	1.76	1.94	3.53
UK: with f2f	1.82	2.06	2.07	1.97	2.00	7.01	4.08	2.32	1.98	5.54
Non-UK: no f2f	1.63	1.76	1.75	2.09	2.51	2.89	3.29	1.81	1.95	3.09
Global	**1.79**	**1.90**	**1.99**	**1.98**	**2.12**	**4.61**	**3.63**	**1.93**	**1.95**	**4.12**

GDP ADMIN	M	Tu	W	Th	F	Sa	Su	Week	Weekday	Weekend
UK: no f2f	0.63	0.59	0.50	0.56	0.59	0.78	0.75	0.22	0.57	0.76
UK: with f2f	0.61	0.52	0.51	0.57	2.18	5.12	2.17	0.94	0.88	3.64
Non-UK: no f2f	0.67	0.68	0.57	0.62	0.82	0.95	0.89	0.29	0.67	0.92
Global	**0.63**	**0.58**	**0.51**	**0.57**	**1.36**	**3.48**	**1.16**	**0.49**	**0.73**	**2.32**

GDP VLE	M	Tu	W	Th	F	Sa	Su	Week	Weekday	Weekend
UK: no f2f	0.84	0.86	0.76	0.83	0.86	0.94	0.95	0.48	0.83	0.94
UK: with f2f	0.86	0.81	0.97	0.67	0.76	1.10	1.25	0.48	0.81	1.17
Non-UK: no f2f	0.70	0.99	0.72	1.27	0.90	1.25	1.18	0.58	0.92	1.22
Global	**0.83**	**0.86**	**0.82**	**0.80**	**0.83**	**1.00**	**1.06**	**0.49**	**0.83**	**1.03**

WORK	M	Tu	W	Th	F	Sa	Su	Week	Weekday	Weekend
UK: no f2f	7.97	8.12	8.11	8.18	7.86	5.83	4.23	5.59	8.05	5.03
UK: with f2f	8.15	8.02	8.16	8.16	7.80	2.00	1.48	5.48	8.06	1.74
Non-UK: no f2f	8.98	9.07	8.69	8.48	7.03	5.73	8.61	6.35	8.45	7.17
Global	**8.11**	**8.18**	**8.18**	**8.20**	**7.79**	**5.67**	**5.42**	**5.63**	**8.09**	**5.55**

TRAVEL	M	Tu	W	Th	F	Sa	Su	Week	Weekday	Weekend
UK: no f2f	1.57	1.55	1.55	1.64	1.65	1.93	1.97	1.19	1.59	1.95
UK: with f2f	1.63	1.50	1.53	1.62	1.53	3.14	2.03	1.23	1.56	2.59
Non-UK: no f2f	1.70	1.45	1.56	1.83	2.08	2.18	2.26	1.36	1.72	2.22
Global	**1.60**	**1.53**	**1.55**	**1.65**	**1.64**	**2.44**	**2.05**	**1.21**	**1.59**	**2.24**

DIARY LEARNING ACTIVITY TIMES (HOURS)

	AVE	%	MAX	MIN	SD
ACTIVITY 2.3 SURFING THE WEB					
Reading / Watching	10.26	18%	80	0	11.65
Thinking / Reflection	8.51	15%	60	0	7.27
Making Notes	7.08	12%	60	0	8.10
Online Research	25.07	43%	150	0	18.68
Quiz Questions	2.66	5%	150	0	10.33
VLE Participation	4.78	8%	80	0	9.28
Total	**58.25 hours**		**380**	**0**	**36.72**

ACTIVITY 2.4 GLOBAL WARMING RESEARCH

Reading / Watching	20.71	17%	150	0	22.61
Thinking / Reflection	16.98	14%	100	0	12.89
Making Notes	15.50	13%	90	0	14.47
Online Research	45.20	37%	170	0	33.64
Quiz Questions	3.05	3%	100	0	10.34
VLE Participation	20.50	17%	120	0	17.25
Total	**121.72 hours**		**640**	**0**	**66.75**

ACTIVITY 2.5 BETA BUILD RAIL

Reading / Watching	64.10	49%	360	0	52.38
Thinking / Reflection	18.80	14%	150	0	17.70
Making Notes	18.55	14%	150	0	18.62
Online Research	5.67	4%	140	0	14.65
Quiz Questions	20.66	16%	210	0	18.87
VLE Participation	4.01	3%	70	0	9.77
Total	**131.78 hours**		**820**	**0**	**83.59**

ACTIVITY 2.6 LOVE LANE BOUNDARY

Reading / Watching	71.07	50%	350	0	57.80
Thinking / Reflection	22.11	15%	240	0	20.83
Making Notes	16.98	12%	100	0	16.74
Online Research	11.15	8%	150	0	18.10
Quiz Questions	3.09	2%	120	0	10.71
VLE Participation	18.92	13%	120	0	18.34
Total	**143.32 hours**		**810**	**0**	**89.47**

ACTIVITY 2.7 ENGLEFIELD ESTATE

Reading / Watching	48.84	31%	220	0	39.78
Thinking / Reflection	28.30	18%	250	0	28.54
Making Notes	22.43	14%	180	0	21.84
Online Research	30.25	19%	400	0	39.24
Quiz Questions	20.80	13%	150	0	19.84
VLE Participation	6.11	4%	105	0	12.62
Total	**156.73 hours**		**870**	**0**	**105.55**

POST-IMC QUESTIONNAIRE RESPONSES *Refer to Appendix 6 for Questions*

Total Possible 470 Total Returned 310 Response Rate 66.0%

TIME EXPERIENCE

Weekly time availability 95.8% (297)	Lot more 5% (14)	More time 8% (23)	As expected 32% (95)	Less time 39% (116)	Lot less time 16% (49)				
Time Pressures (M) 94.5% (293)	Not applicable 12% (36)	Health demands 20% (59)	Work demands 72% (210)	Study demands 27% (79)	Course Demands 16% (47)	Domestic demands 26% (77)	Social demands 30% (88)	Leisure demands 20% (58)	Other 13% (37)

Unforeseen events
35.8% (111)

111 students cited other events									
Face to Face attendance - UK and HK 95.8% (297)	Absent - too far 8% (23)	Absent - inconvenient 9% (27)	Absent - other 21% (61)	Absent - too costly 3% (8)	Absent - not afford time 8% (25)	Absent - optional 4% (13)	Not applicable 5% (16)	Other 9% (26)
Time Management 94.8% (294)	Reasonably well 54% (159)	Struggling 35% (103)	Poorly 6% (19)					
Regular study time 95.5% (296)	1 – 3 Hours 4% (11)	4 – 6 Hours 15% (45)	7 – 10 Hours 41% (121)	11 – 14 Hours 29% (85)	15 – 18 Hours 6% (17)	19+ Hours 2% (5)		
Future time changes to study arrangements (M) 90.0% (279)	Reduce social 29% (80)	Reduce leisure 27% (74)	Reduce domestic 20% (56)	Commuting 20% (57)	Use Work Gaps 54% (150)	Impossible 9% (24)	Other 0% (1)	

TIME IN STUDY

Continuous study time 99.7% (309)	< 20 minutes 5% (15)	20 – 40 minutes 16% (48)	40 – 60 minutes 38% (118)	60 – 90 minutes 21% (65)	90 minutes – 2 hours 15% (45)	2 hours + 6% (18)	
Number of study breaks per hour 94.5% (293)	None 37% (109)	One 50% (147)	Two 11% (32)	Three + 2% (5)			
Length of study breaks 94.5% (293)	No Break 23% (68)	5 minutes 27% (78)	10 minutes 30% (88)	15 minutes 14% (41)	20 minutes 4% (12)	20 minutes + 2% (6)	
Reason for breaks in study (M) 92.3% (286)	To rest eyes 53% (152)	To rest brain 73% (208)	To drink 65% (187)	To smoke 8% (23)	Use toilet 52% (149)	Dependent care 6% (18)	Other 8% (24)
Best time of day for studying 95.2% (295)	Early (06.00-09.00) 10% (29)	Morning (0900-12.00) 29% (87)	Lunchtime (12.00-14.00) 4% (12)	Afternoon (14.00-17.00) 9% (28)	Early Evening (17.00-19.00) 11% (31)	Evening (19.00-22.00) 27% (79)	Late evening (22.00-24.00) 8% (23)	Night (0.00-06.00) 2% (6)

TIME AND LEARNING ACTIVITY

Pre / post test quizzes value 93.2% (289)	Not Completed 9% (27)	Very worthwhile 17% (50)	Reasonably worthwhile 53% (153)	Not very worthwhile 20% (59)				Feedback 22% (63)
Ice-breaker activity value 92.9% (288)	Did not participate 4% (11)	Very worthwhile 22% (64)	Reasonably worthwhile 58% (167)	Not very worthwhile 16% (46)				Feedback 13% (38)
Self study / research activities value 92.6% (287)	Did not complete them 3% (9)	Too short by > 1 hour 17% (48)	Too short by < 1 hour 13% (38)	About right 46% (132)	Too long by < 1 hour 17% (48)	Too long by > 1 hour 4% (12)		Feedback 15% (42)
Knowledge testing quiz activities value 92.3% (286)	Did not complete them 7% (20)	Too short by > 1 hour 6% (16)	Too short by < 1 hour 13% (38)	About right 52% (148)	Too long by < 1 hour 20% (58)	Too long by > 1 hour 2% (6)		Feedback 7% (20)
Case study activities value 92.6% (287)	Did not complete them 1% (3)	Too short by > 1 hour 16% (45)	Too short by < 1 hour 19% (54)	About right 54% (155)	Too long by < 1 hour 9% (27)	Too long by > 1 hour 1% (3)		Feedback 7% (20)

Case study activities with quizzes value 91.6% (284)	Did not complete them 7% (21)	Too short by > 1 hour 10% (28)	Too short by < 1 hour 14% (40)	About right 55% (157)	Too long by < 1 hour 12% (33)	Too long by > 1 hour 2% (5)	Feedback 4% (11)
Web research activities value 91.9% (285)	Did not complete them 5% (14)	Too short by > 1 hour 9% (25)	Too short by < 1 hour 11% (30)	About right 41% (117)	Too long by < 1 hour 22% (64)	Too long by > 1 hour 12% (35)	Feedback 8% (23)

PARTICIPATION IN ONLINE FORUMS

Participation in online discussion 92.3% (286)	Did not read or post 2% (7)	Read messages only 10% (30)	Read messages, posted replies 22% (64)	Posted original, read others, posted no replies 23% (65)	Posted original, read others and posted replies 42% (120)		Feedback 16% (46)
Reason for non-participation 88.7% (275)	Full participation 38% (105)	No computer access 5% (14)	Behind schedule 20% (55)	Everything said 20% (54)	Task not understood 1% (4)	No value 1% (4)	Other 14% (39)	Feedback 14% (39)

ASSIGNMENTS

Assignment hours 89.0% (276)

	Assignment 1	Assignment 2
Average	14.2	16.4
Maximum	72.0	72.0
Minimum	2.0	2.0
St Dev	8.5	8.6

OVERALL LEARNING

Study skills resource 93.2% (289)	Not referred to 26% (76)	Referred to once or twice 59% (171)	Referred to weekly 13% (38)	Referred to daily 1% (4)		Feedback 5% (14)
Overall learning 93.2% (289)	Everything 3% (9)	Most 62% (179)	Some 31% (91)	Little 3% (8)	Nothing 1% (2)	
Suggested changes 48.7% (151)	151 students suggested changes to the module					
Further Comments 27.4% (85)	85 students provided further feedback about the course and their time					
Future participation 93.2% (289)	Agree 64% (184)	Not agree 36% (105)				

POST-TECHNOLOGY QUESTIONNAIRE RESPONSES *Refer to Appendix 7 for Questions*

Total Possible: 62 Total Returned: 41 Response Rate: 66.1%

Current Status 100% (41)

Continuing	Deferred	Deferred All	Withdrawn	Ceased Study
98% (40)	2% (1)	0% (0)	0% (0)	0% (0)

Time Management 100% (41)

Very Well	Reasonably well	Struggling	Poorly
17% (7)	56% (23)	22% (9)	5% (2)

Weekly time 100% (41)

Lot more time	More time	As expected	Less time	Lot less time
2% (1)	10% (4)	51% (21)	32% (13)	5% (2)

Assignment time 100% (41)

(Hours)	Assignment 1	Assignment 2
Average	22.4	28.5
Maximum	72.0	90.0
Minimum	3.0	3.0
St Dev	13.3	15.9

Notes Number of responses to each question and answer shown in brackets.
Question percentages are calculated against the total number returned.
Answer percentages calculated against the total responses to the particular question.
Questions where multiple answers possible are marked (M).

Overall learning 100% (41)

Everything	Most	Some	Little	Nothing
0% (0)	71% (29)	29% (12)	0% (0)	0% (0)

Suggested changes 90% (37)

37 students suggested changes to the module

COURSE Pressures (M) 90% (37)

Academically difficult	Materials are difficult	More background	Lacks relevance	Assignment expection	Fallen behind	Other
16% (6)	24% (9)	43% (16)	8% (3)	38% (14)	22% (8)	43% (16)

PERSONAL Pressures (M) 83% (34)

Workload and pace	No quiet time	Poor IT access	Study skills	English language	Other
68% (23)	47% (16)	18% (6)	9% (3)	0% (0)	9% (3)

DOMESTIC Pressures (M) 83% (34)

Demands at home	Need more home support	Moved home	New baby	Holiday	Own Illness	Family Illness	Bereavement	Other
59% (20)	9% (3)	15% (5)	12% (4)	44% (15)	32% (11)	21% (7)	0% (0)	32% (11)

WORK Pressures (M) 78% (32)

Demands at work	Need work support	New job	Redundancy	Job hunting	Other
66% (21)	34% (11)	16% (5)	3% (1)	9% (3)	31% (10)

Unforeseen events 51% (21)

21 students cited other events

Weekly Time for Studies 90% (37)

	GDP Study	GDP VLE	GDP Admin
Count	38	35	37
Average	15.3	3.8	1.6
Max	30	15	6
Min	5	1	0
StDev	5.82	2.71	1.41

Weekly Non-Study Time Use						
100% (41)	W - Work	No Change 54% (22)	Small Increase 22% (9)	Large Increase 12% (5)	Small Reduction 10% (4)	Large Reduction 2% (1)
100% (41)	T - Travel	No Change 63% (26)	Small Increase 15% (6)	Large Increase 7% (3)	Small Reduction 12% (5)	Large Reduction 2% (1)
98% (40)	D - Domestic	No Change 65% (26)	Small Increase 10% (4)	Large Increase 5% (2)	Small Reduction 20% (8)	Large Reduction 0% (0)
100% (41)	S - Social	No Change 46% (19)	Small Increase 15% (6)	Large Increase 2% (1)	Small Reduction 32% (13)	Large Reduction 5% (2)
100% (41)	L - Leisure	No Change 56% (23)	Small Increase 15% (6)	Large Increase 2% (1)	Small Reduction 15% (6)	Large Reduction 12% (5)
100% (41)	I - Internet	No Change 63% (26)	Small Increase 17% (7)	Large Increase 7% (3)	Small Reduction 10% (4)	Large Reduction 2% (1)
100% (41)	R - Resting	No Change 61% (25)	Small Increase 7% (3)	Large Increase 2% (1)	Small Reduction 24% (10)	Large Reduction 5% (2)
Further Comments 49% (20)	20 students provided further feedback about the course and their time					

POST-LAW QUESTIONNAIRE RESPONSES *Refer to Appendix 8 for Questions*

Total Possible: 41 Total Returned: 37 Response Rate: 90.0%

Current Status 100% (37)	Continuing 95% (35)	Deferred 0% (0)	Deferred All 3% (1)	Withdrawn 3% (1)	Ceased Study 0% (0)
Time Management 100% (37)	Very Well 11% (4)	Reasonably well 65% (24)	Struggling 19% (7)	Poorly 5% (2)	
Weekly time 100% (37)	Lot more time 0% (0)	More time 22% (8)	As expected 43% (16)	Less time 30% (11)	Lot less time 5% (2)

Assignment time
100% (37)

(Hours)	Assignment 1	Assignment 2
Average	16.2	16.4
Maximum	43.0	40.0
Minimum	4.0	0.0
St Dev	8.6	8.5

Overall learning
100% (37)

Everything	Most	Some	Little	Nothing
3% (1)	59% (22)	38% (14)	0% (0)	0% (0)

Suggested changes
65% (24)

24 students suggested changes to the module

COURSE Commitment / Time Pressures (M)

Effect on time	Academic Difficulty	Material Difficulty	Background Knowledge	Content Relevance	Assignment Mis-understanding	Learning Activity Mis-understanding	Falling Behind
100%	4 13.8%	2 6.9%	4 13.8%	6 20.7%	5 17.2%	5 17.2%	3 10.3%
80%	6 14.0%	8 18.6%	9 20.9%	4 9.3%	6 14.0%	5 11.6%	5 11.6%
60%	9 21.4%	6 14.3%	8 19.0%	3 7.1%	6 14.3%	2 4.8%	8 19.0%
40%	5 10.9%	8 17.4%	6 13.0%	7 15.2%	7 15.2%	9 19.6%	4 8.7%
20%	3 10.7%	4 14.3%	3 10.7%	6 21.4%	4 14.3%	4 14.3%	4 14.3%
Response	73%	75.7%	81.1%	70.3%	75.7%	67.6%	64.9%

Further Comment
32% (12)

PERSONAL Commitment / Time Pressures (M)

Effect on time	Workload and Pace	Quiet Study	IT Access	Study Skills	English Language
100%	3 8.1%	6 16.2%	11 29.7%	8 21.6%	9 24.3%
80%	12 42.9%	4 14.3%	4 14.3%	3 10.7%	5 17.9%
60%	6 26.1%	7 30.4%	1 4.3%	7 30.4%	2 8.7%
40%	3 15.8%	7 36.8%	4 21.1%	3 15.8%	2 10.5%
20%	5 20.0%	4 16.0%	5 20.0%	7 28.0%	4 16.0%
Response	78.4%	75.7%	67.6%	75.7%	59.5%

Further Comment
27% (10)

DOMESTIC Commitment / Time Pressures (M)

Effect on time	Family Problems	Social Problems	Household Problems	Moving Home	Child Care	Adult Care	Holiday	Marriage	Personal Illness
100%	6 10.7%	7 12.5%	4 7.1%	7 12.5%	6 10.7%	8 14.3%	3 5.4%	9 16.1%	6 10.7%
80%	6 16.7%	3 8.3%	8 22.2%	2 5.6%	3 8.3%	4 11.1%	6 16.7%	2 5.6%	2 5.6%
60%	3 10.7%	3 10.7%	5 17.9%	2 7.1%	5 17.9%	2 7.1%	4 14.3%	1 3.6%	3 10.7%
40%	0 0.0%	2 12.5%	4 25.0%	0 0.0%	1 6.3%	1 6.3%	6 37.5%	0 0.0%	2 12.5%
20%	2 11.8%	2 11.8%	2 11.8%	3 17.6%	0 0.0%	1 5.9%	3 17.6%	0 0.0%	4 23.5%
Response	46%	46%	62.2%	37.9%	40.6%	43.3%	59.5%	32.5%	46%

Further Comment
24% (9)

WORK Commitment / Time Pressures (M)

Effect on time	Extra Time	Working Away	New Job	Redundancy	Job Hunting
100%	3 10.0%	7 23.3%	6 20.0%	8 26.7%	6 20.0%
80%	7 38.9%	5 27.8%	1 5.6%	1 5.6%	4 22.2%
60%	6 75.0%	1 12.5%	1 12.5%	0 0.0%	0 0.0%
40%	6 50.0%	1 8.3%	2 16.7%	0 0.0%	3 25.0%
20%	3 27.3%	3 27.3%	1 9.1%	3 27.3%	1 9.1%
Response	67.6%	46%	29.8%	32.5%	37.9%

Further Comment
27% (10)

Unforeseen events
43% (16)

16 students cited other events

Weekly Time for Studies
97% (36)

(Hours)	GDP Study	GDP VLE	GDP Admin
Count	33	33	33
Average	14	3	2
Max	30	12	6
Min	0	0	0
StDev	7	3	2

Weekly Non-Study Time Use
97% (36)

W - Work	No Change	Small Increase	Large Increase	Small Reduction	Large Reduction
	42% (15)	17% (6)	22% (8)	17% (6)	3% (1)

97% (36)

T - Travel	No Change	Small Increase	Large Increase	Small Reduction	Large Reduction
	67% (24)	11% (4)	8% (3)	14% (5)	0% (0)

97% (36)	D - Domestic	No Change 69% (25)	Small Increase 8% (3)	Large Increase 11% (4)	Small Reduction 11% (4)	Large Reduction 0% (0)
97% (36)	S - Social	No Change 33% (12)	Small Increase 28% (10)	Large Increase 8% (3)	Small Reduction 22% (8)	Large Reduction 8% (3)
97% (36)	L - Leisure	No Change 44% (16)	Small Increase 31% (11)	Large Increase 3% (1)	Small Reduction 19% (7)	Large Reduction 3% (1)
97% (36)	I - Internet	No Change 67% (24)	Small Increase 11% (4)	Large Increase 3% (1)	Small Reduction 14% (5)	Large Reduction 6% (2)
97% (36)	R - Resting	No Change 53% (19)	Small Increase 19% (7)	Large Increase 6% (2)	Small Reduction 19% (7)	Large Reduction 3% (1)

Weekly Protected Time

Count	33
Average	9.4
Max	23.0
Min	0.0
StDev	5.34

Protected Time Problems
65% (24)

24 students cited other events

Further Comments
49% (18)

18 students provided further feedback about the course and their time

POST-PRACTICE QUESTIONNAIRE RESPONSES *Refer to Appendix 9 for Questions*

Total Possible: 37 Total Returned: 28 Response Rate: 75.7%

Current Status 100% (28)	Continuing 100% (28)	Deferred 0% (0)	Deferred A/I 0% (0)	Withdrawn 0% (0)	Ceased Study 0% (0)
Time Management 100% (28)	Very Well 18% (5)	Reasonably well 57% (16)	Struggling 11% (3)	Poorly 14% (4)	
Weekly time 100% (28)	Lot more time 14% (4)	More time 21% (6)	As expected 36% (10)	Less time 25% (7)	Lot less time 4% (1)

Assignment time
100% (28)

(Hours)	Assignment 1	Assignment 2
Average	17.2	23.5
Maximum	60.0	120.0
Minimum	5.0	4.0
St Dev	11.9	21.4

Overall learning
100% (28)

Everything	Most	Some	Little	Nothing
0% (0)	54% (15)	43% (12)	4% (1)	0% (0)

Benefit of Face to Face
86% (24)

	Very beneficial	Reasonably Beneficial	Not very beneficial	No benefit	Absent
Reading - July	5 20.8%	7 29.2%	1 4.2%	0 0.0%	11 45.8%
Reading - September	7 28.0%	11 44.0%	1 4.0%	0 0.0%	6 24.0%
Hong Kong - July	0 0.0%	0 0.0%	0 0.0%	0 0.0%	20 100.0%

Improving study
96% (27)

	Very helpful	Reasonably helpful	Optional	No help
Weekly Podcast	11 40.7%	10 37.0%	5 18.5%	1 3.7%
Intro Videocast	16 59.3%	5 18.5%	5 18.5%	1 3.7%
Interactive learning	18 66.7%	5 18.5%	4 14.8%	0 0.0%

Suggested changes
82% (23)

23 students suggested changes to the module

COURSE Commitment / Time Pressures (M)

Effect on time	Academic Difficulty	Material Difficulty	Background Knowledge	Content Relevance	Assignment Mis-understanding	Learning Activity Mis-understanding	Falling Behind
100%	3 11.1%	4 14.8%	5 18.5%	2 7.4%	6 22.2%	5 18.5%	2 7.4%
80%	11 22.9%	10 20.8%	7 14.6%	7 14.6%	3 6.3%	2 4.2%	8 16.7%
60%	6 18.8%	1 3.1%	9 28.1%	3 9.4%	6 18.8%	4 12.5%	3 9.4%
40%	4 9.8%	7 17.1%	1 2.4%	8 19.5%	8 19.5%	9 22.0%	4 9.8%
20%	3 13.6%	2 9.1%	5 22.7%	2 9.1%	2 9.1%	4 18.2%	4 18.2%
Response	96.5%	85.8%	96.5%	78.6%	89.3%	85.8%	75%

Further Comment
46% (13)

PERSONAL Commitment / Time Pressures (M)

Effect on time	Workload and Pace	Quiet Study	IT Access	Study Skills	English Language
100%	4 12.9%	7 22.6%	8 25.8%	5 16.1%	7 22.6%
80%	8 38.1%	6 28.6%	1 4.8%	5 23.8%	1 4.8%
60%	4 40.0%	3 30.0%	0 0.0%	3 30.0%	0 0.0%
40%	4 30.8%	1 7.7%	2 15.4%	4 30.8%	2 15.4%
20%	2 15.4%	3 23.1%	5 38.5%	1 7.7%	2 15.4%
Response	78.6%	71.5%	57.2%	64.3%	42.9%

Further Comment
18% (5)

DOMESTIC Commitment / Time Pressures (M)

Effect on time	Family Problems	Social Problems	Household Problems	Moving Home	Child Care	Adult Care	Holiday	Marriage	Personal Illness
100%	5 12.2%	4 9.8%	4 9.8%	4 9.8%	4 9.8%	5 12.2%	5 12.2%	6 14.6%	4 9.8%
80%	3 15.8%	3 15.8%	4 21.1%	1 5.3%	1 5.3%	0 0.0%	3 15.8%	1 5.3%	3 15.8%
60%	4 40.0%	0 0.0%	0 0.0%	1 10.0%	1 10.0%	0 0.0%	4 40.0%	0 0.0%	0 0.0%
40%	2 13.3%	2 13.3%	3 20.0%	1 6.7%	1 6.7%	1 6.7%	3 20.0%	1 6.7%	1 6.7%
20%	1 4.0%	4 16.0%	6 24.0%	1 4.0%	4 16.0%	1 4.0%	5 20.0%	1 4.0%	2 8.0%
Response	53.6%	46.5%	60.8%	28.6%	39.3%	25%	71.5%	32.2%	35.8%

Further Comment
36% (10)

WORK Commitment / Time Pressures (M)

Effect on time	Extra Time	Working Away	New Job	Redundancy	Job Hunting
100%	4 19.0%	6 28.6%	5 23.8%	3 14.3%	3 14.3%
80%	4 57.1%	1 14.3%	1 14.3%	1 14.3%	0 0.0%
60%	6 54.5%	3 27.3%	0 0.0%	1 9.1%	1 9.1%
40%	3 30.0%	2 20.0%	1 10.0%	1 10.0%	3 30.0%
20%	3 30.0%	2 20.0%	1 10.0%	1 10.0%	3 30.0%
Response	71.5%	50%	28.6%	25%	35.8%

Further Comment
32% (9)

Unforeseen events
29% (8)

8 students cited other events

Weekly Time for Studies
93% (26)

	GDP Study	GDP VLE	GDP Admin
Count	26	26	26
Average	15.0	2.8	2.1
Max	35	12	7
Min	3	1	0
StDev	8.30	2.21	2.12

Weekly Non-Study Time Use

93% (26)	W - Work	No Change 50% (13)	Small Increase 15% (4)	Large Increase 19% (5)	Small Reduction 8% (2)	Large Reduction 8% (2)
93% (26)	T - Travel	No Change 77% (20)	Small Increase 12% (3)	Large Increase 4% (1)	Small Reduction 0% (0)	Large Reduction 8% (2)
93% (26)	D - Domestic	No Change 58% (15)	Small Increase 23% (6)	Large Increase 8% (2)	Small Reduction 8% (2)	Large Reduction 4% (1)
93% (26)	S - Social	No Change 31% (8)	Small Increase 19% (5)	Large Increase 12% (3)	Small Reduction 31% (8)	Large Reduction 8% (2)
93% (26)	L - Leisure	No Change 35% (9)	Small Increase 31% (8)	Large Increase 4% (1)	Small Reduction 23% (6)	Large Reduction 8% (2)
93% (26)	I - Internet	No Change 42% (11)	Small Increase 15% (4)	Large Increase 0% (0)	Small Reduction 35% (9)	Large Reduction 8% (2)
93% (26)	R - Resting	No Change 42% (11)	Small Increase 15% (4)	Large Increase 0% (0)	Small Reduction 35% (9)	Large Reduction 8% (2)

Weekly Protected Time
93% (26)

Count	26
Average	10.8
Max	20.0
Min	4.0
StDev	4.55

Protected Time Problems
86% (24)

24 students cited other events

Further Comments
93% (26)

18 students provided further feedback about the course and their time

Finding Extra Time (Ranking 1=First, 2=Second ... 8=Last)
86% (24)

Rank	Unpaid leave	Annual leave	Reduced social	Reduced leisure	Reduced domestic	Work less	Reduce rest	Other
1	0	6	4	6	3	3	2	2
2	0	3	0	4	4	1	3	0
3	2	1	3	5	7	1	4	0
4	0	1	3	6	2	2	4	2
5	1	4	0	2	4	5	2	0
6	2	2	2	1	2	6	5	0
7	10	6	1	0	1	0	2	0
8	8	0	0	0	0	5	1	3

Holiday Duration
89% (25)

None	1-3 days	4-7 days	8-14 days	15+ days
4	8	4	4	5
16.0%	32.0%	16.0%	16.0%	20.0%

Holiday Destination
71% (20)

Home	In Country	Mixed	Abroad
4	6	4	6
20.0%	30.0%	20.0%	30.0%

Further Comment 14% (4)

Holiday Study
86% (24)

No study	Intended	Studied	VLE	No holiday
6	3	9	2	4
25.0%	12.5%	37.5%	8.3%	16.7%

Further Comment 14% (4)

Creating Holiday Time (M)

	Got ahead	Caught up after	Fell behind	Used
	12	13	3	4
	37.5%	40.6%	9.4%	12.5%
Response	42.9%	46.5%	10.8%	14.3%

Further Comment 21% (6)

Assignment Extensions
39% (11)

Count	Management and Control	Technology of Building	Introduction to Law	Fundamentals of Practice
Assignment 1	1	1	3	3
Assignment 2	0	0	4	5

Average number of extensions (limited to 3 but 8 maximum) = 0.5

Exam Preparation
93% (26)

	Very Well	Reasonably well	Just enough	Not enough
Law	5	13	6	2
	19.2%	50.0%	23.1%	7.7%
Practice	2	6	11	7
	7.7%	23.1%	42.3%	26.9%

Exam Revision Time
89% (25)

1-3 days	4-6 days	7-9 days	10-12 days	13-15 days	16-18 days	19-21 days
1	9	7	6	2	1	0
3.8%	34.6%	26.9%	23.1%	7.7%	3.8%	0.0%

Creating Revision Time (M)

	Annual leave	Unpaid leave	Study leave	Reduce social	Reduce domestic	Reduce leisure	Reduce rest
	16	3	16	22	15	17	10
	16.2%	3.0%	16.2%	22.2%	15.2%	17.2%	10.1%
Response	57.2%	10.8%	57.2%	78.6%	53.6%	60.8%	35.8%

Further Comment 14% (4)

Further Comments 32% (9)

9 students provided further feedback about the course and their time

PART 2 FEEDBACK QUESTIONNAIRE RESPONSES *Refer to Appendix 10 for Questions*

Total Possible: 120 Total Returned: 55 Response Rate: 45.8%

Accuracy of Average Hours per Week

		1 Too High	2 High	3 About Right	4 Low	5 Too Low
Resting	57.4 hrs/wk	9	12	32	2	0
		16.4%	21.8%	58.2%	3.6%	0.0%
Domestic	14.0 hrs/wk	3	14	29	6	3
		5.5%	25.5%	52.7%	10.9%	5.5%
Social / Leisure	22.4 hrs/wk	6	20	20	4	4
		10.9%	36.4%	36.4%	7.3%	7.3%
Internet	3.5 hrs/wk	1	2	19	22	11
		1.8%	3.6%	34.5%	40.0%	20.0%
Work	42.5 hrs/wk	2	2	31	9	11
		3.6%	3.6%	56.4%	16.4%	20.0%
Travel	5.0 hrs/wk	6	4	26	10	8
		10.9%	7.3%	47.3%	18.2%	14.5%
GDP Study	16.8 hrs/wk	9	11	28	6	1
		16.4%	20.0%	50.9%	10.9%	1.8%
GDP VLE	4.2 hrs/wk	5	16	22	10	2
		9.1%	29.1%	40.0%	18.2%	3.6%
GDP Admin	2.1 hrs/wk	9	17	21	7	1
		16.4%	30.9%	38.2%	12.7%	1.8%

Agreement with Variability of Time

		1 Stongly Agree	2 Agree	3 Neutral	4 Disagree	5 Strongly
Resting	Constant	20	21	7	4	3
		36.4%	38.2%	12.7%	7.3%	5.5%
Domestic	Constant	18	18	14	3	1
		32.7%	32.7%	25.5%	5.5%	1.8%
Social	Flexible	22	18	8	4	3
		40.0%	32.7%	14.5%	7.3%	5.5%
Leisure	Flexible	20	18	12	4	1
		36.4%	32.7%	21.8%	7.3%	1.8%
Internet	Flexible	14	12	17	11	1
		25.5%	21.8%	30.9%	20.0%	1.8%
Work	Constant	21	13	12	4	5
		38.2%	23.6%	21.8%	7.3%	9.1%
Travel	Constant	25	15	12	2	0
		45.5%	27.3%	21.8%	3.6%	0.0%
GDP Study	Constant	7	11	12	16	9
		12.7%	20.0%	21.8%	29.1%	16.4%
GDP VLE	Constant	5	14	14	16	6
		9.1%	25.5%	25.5%	29.1%	10.9%
GDP Admin	Flexible	11	11	17	11	5
		20.0%	20.0%	30.9%	20.0%	9.1%

Inclusivity of Range of Hours per Week

		1 Yes	2 No
Resting	54.5 - 62.7 hrs	44 80.0%	9 16.4%
Domestic	9.8 - 17.8 hrs	41 74.5%	11 20.0%
Social	6.0 – 15.0 hrs	43 78.2%	10 18.2%
Leisure	6.0 - 17.2 hrs	43 78.2%	10 18.2%
Internet	1.0 – 4.0 hrs	29 52.7%	23 41.8%
Work	34.8 - 44.3 hrs	36 65.5%	17 30.9%
Travel	5.0 - 10.9 hrs	35 63.6%	18 32.7%
GDP Study	9.8 – 17.0 hrs	38 69.1%	14 25.5%
GDP VLE	1.5 - 4.4 hrs	37 67.3%	16 29.1%
GDP Admin	0.3 – 3.0 hrs	38 69.1%	14 25.5%