Learning during online and blended courses

Volume II

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Chapter 7

An emerging theory of online learning

A theory is a well developed and related set of explanatory concepts about how the world works (Strauss and Corbin 1998, 24). A theory can explain, describe and predict a phenomenon that has been studied and empirically grounded in research (Strauss & Corbin 1998, 24). In this research the grounded approach allowed ongoing comparative analysis between a group of heterogeneous, postgraduate, and professional, online and blended learners' ways of knowing. The results reported in the previous chapters helped to identify the main themes and constructs that can contribute to the development of a grounded theory of online learning. The aim of this chapter is to bring together the main themes and constructs, and report on a theory that practitioners may draw on to explain, test and develop future online learning research and practice.

The chapter begins with a discussion of how the research results support the development of a grounded theory of online learning. Following answers to the main research questions posed in chapter one, an emerging theory of online learning is described. This theory provides conceptual understanding of similarities and differences between learners' knowledge construction processes, learning choices, and online discussion participation. The main themes and constructs from the grounded approach support the description of three main tenets or the basic principles of the theory. This follows explanation of each tenet with a set of hypotheses that can be tested against existing experiences and future conditions.

I then use this theory to critique the popular use of Salmon's (2000) five-stage model for online learning. I argue that Salmon's (2000) model is a simplistic, linear and an incomplete representation of the issues and stages for online discussion participation during online and blended courses. In contrast, my theory explains that knowledge construction processes in online and blended learning contexts, including online discussion participation, are complex and different for individual learners, and are influenced by personal control and emotions experienced during a course.

The main tenets and related hypotheses help to develop recommendations for future online learning practice and research. The latter part of the chapter highlights the claim for contribution this research has made to online learning pedagogy and summaries the implications for practitioners and institutions.

7.3 Grounded Theory

According to Glaser and Strauss (1967) grounded theory is a social theory about a phenomenon that results from empirical observation of everyday life. It is a qualitative approach characterised by inductive fieldwork, where the end result is a theory that emerges from or is "grounded" in, the research data (Merriam and Simpson 1989, 99). All themes and concepts that emerge in such a study are embedded in the data and can be traced back and confirmed from the raw data. As a grounded theory emerges the researcher is able to confirm the developing themes, concepts and explanations through ongoing comparison between the confirming, negative and discrepant cases (Lincoln and Guba 1985, 205), until she[sic] reaches saturation from varieties of data (Glaser and Strauss 1967, 62).

As explained in chapters three and four, the Repertory Grid Method was an effective tool for active involvement of a heterogeneous group of postgraduate professional active, moderate and silent participants to reconstruct their ways of knowing. The methodology was effective in surfacing subtle differences and similarities between participants and revealed deep personal constructs that influenced their learning. The Method also enabled the silent participants to voice and evidence their individual and social learning processes. It helped to elicit and reconstruct personal theories of learning for individual participants in online or blended learning contexts.

The grounded approach supported theoretical sampling, ongoing comparative data analysis and reflexive questioning during the interviews and analysis. The ongoing qualitative analysis during and after data collection involved comparison of knowledge construction processes and personal theories for different professional learners. The coding and writing processes surfaced and confirmed the main themes and constructs described in the previous three chapters. These themes and constructs

help to explain the researched phenomenon, i.e. the knowledge construction of professional postgraduate learners during online and blended courses that encourage participation in online discussions.

The themes and constructs offer answers to the research questions and provide theoretical propositions about how and why some learners engage in online discussions while others do not. The following paragraphs draw on these research results to answer the research questions and to outline an emerging theory of online learning. This theory contributes to an understanding of the hidden presuppositions about knowledge construction processes and engagement during the online and blended courses.

It is important to point out that the research findings from this small-scale research are not generaliseable and representative of all learners' experiences. The research findings and the emerging theory are not used to generalise and prejudge learners' ways of knowing based on their participation in online discussions but to acknowledge and understand individual differences and their personal constructions. According to Strauss and Corbin (1996, 267),

> "*...in writing theoretical formulations from our (qualitative) study, we specify the conditions that give rise to a certain phenomena... and explain what consequences occur as a result of those actions/interactions. We are not suggesting that a substantive theory has the explanatory power of a general theory... However, the real merit of a substantive theory lies in its ability to speak specifically for the populations from which it was derived and to apply it back to them.*"

It is important to reiterate that the research results and the theory emerged from a voluntary sample of postgraduate learners at one higher education institution. The location, choice of courses and voluntarism of sample can limit the explanatory power of the resulting theory. Thus, the research results are specific to the participants and their specific constructions during online and blended courses. The online learning theory reported below should not be treated as a generality that explains everything about the how and why of online learning for different learners. Instead, it should be used as an emerging theory. It is not a grand theory but is a constructivist theory. Its

use needs to be grounded in the actual experiences and differences of individual learners. The theoretical statements provided below can be used to build an open and developmental model for online learning, rather than be used as a final and irrefutable explanation of online learning processes. The ongoing testing of the theoretical propositions with different learners can help extend and develop this theory of online learning.

7.2 Research Answers

In order to describe the emerging theory, this section draws on the research findings to state the answers to research questions asked in chapter one. In response to the first question,

- How do learners engage and construct meaning during online and blended learning courses that require and encourage participation in online discussions?

the research methodology helped to unearth a range of social and individual activities that participants used to construct meaning. These activities took place online or offline. They involved individual learning and social deconstructions of identities and meanings in the online space, in the classroom, and/or at work. The active, moderate and silent participants' choice to either learn alone or with others in the online learning context was influenced by the following conditions and processes, which in turn influenced the similarities or differences in learners' ways of knowing.

- Learning preferences
- Personal control and emotions experienced during learning activities
- Knowledge of others and emotional connectedness to the cohort
- Personal control over online social identity construction
- Formality of language used in online discussions
- Being a home or overseas learner
- Professional relevance of online discussion activities
- Participants work and life contexts
- Learning needs, interests vs. course design and requirements
- Control over IT access and VLE ownership
- Online communication skills

- Tutor presence and formality in online discussions
- Power discourses within and outside the course contexts

The influence of these conditions and processes are considered in the theoretical statements of relationships in the emerging theory (in the next section). These statements can be used in future research to test if the above conditions and processes do have an impact on other online and blended learners' ways of knowing. The course designers and facilitators can also take account of these conditions and processes to develop more learner-centred and flexible technology-enhanced courses.

The participants used individual and social learning activities, course requirements and learning resources to control their learning directions, goals and depth of engagement. Although all participants used online discussions during their current online or blended learning courses, they did not equally benefit from online participation. The participants' emotions were significant and related to their experience of control and social engagement in online discussions. The personal control and emotions experiences during the social psychological and practical processes were important enablers or disablers of knowledge construction using online discussions.

The difference in knowledge construction due to different online discussion participation roles (active, moderate or silent) was the subject of the second research question.

- Are there differences between how active, moderate and silent discussion participants construct meaning? What are these differences?

There were differences between how the four active participants socially engaged and constructed meaning as compared to the other silent, moderate and active discussion participants. The four active participants reported using online discussions as the main part of their knowledge construction cycle successfully. The other participants moderately, partly or marginally engaged in online discussions. These participants did not always construe online discussions as effective for social construction of knowledge. They employed alternative means of individual and social construction. The differences in participants' social construction experiences using online discussions surfaced power discourses where some learners benefited from online discussions and others did not.

The differences in online discussion engagement surfaced the differences in personal control and emotions experienced during individual and social learning activities. However, these differences did not classify silent, moderate and active participation as different ways of knowing. There were silent participants who preferred to engage in social activities, yet did not extensively participate in online discussions and did not gain from the online formal social space. Likewise, there were moderate participants who preferred to learn alone, but they engaged in compulsory or voluntary online discussions and also benefited from online participation. Thus, online discussion participation was neither a measure for participants' social construction of knowledge, nor did online participation or non-participation represent their social or individual learning preferences.

One important similarity between the participants was their construction of the personal constructs control and emotions. All participants identified personal control and emotions as the main personal constructs that influenced their choice of learning activities and learning pathways. The differences in personal control and emotional responses helped to highlight the power discourses at play in formal online discussions that engaged some participants and disengaged others. There were also differences between participants' online language usage and online communication skills. These differences resulted in power discourses between those who felt socially competent in English language use in the online context versus those who did not. The language and online communication skills highlighted the differences in socialisation experiences between overseas and home learners, and explained why the postgraduate overseas learners with English as a second and third language chose to remain silent in online discussions.

In addition, professional relevance of online discussions and related learning activities helped to explain the different levels of online participation. High professional relevance in learning activities was linked to feeling of personal control and positive emotions. The comparisons between professionals showed that while relevance in online discussions enabled online participation, conversely the lack of relevance led to disengagement from online discussions.

The research surfaced differences in the social psychological processes and practical factors, which uncovered additional underlying causes for the differences in online participation. These factors had an impact on participants' personal control and emotions. The analysis evidenced the necessary conditions and processes for successful online discussion participation for learners with different learning preferences, contexts and skills. The learners' personal theories of learning revealed personal control and emotional connection were the underlying conditions for online participation. Learners desired time for initial online socialisation and control over their online social identity construction processes. These processes would help them develop emotional connections with others in the group and help experience greater control for a deeper online exchange for meaning construction. Learners who did not experience a positive online social identity construction disengaged from online discussions or used them superficially to meet the course requirements. Where as, the learners who did experience control and positive emotions, which supported positive online social identity processes, felt more confident to engage in the online discourse for learning.

In addition, the research found that the practical factors such as learners' personal learning goals, time for learning and control over IT access for online learning significantly affected the control they experienced during online social identity construction and online discussion participation. Learners who felt their personal learning goals and professional contexts were closed aligned with the online collaborative tasks, online discussions, and with other learners' goals, engaged more in online discussions. Learners who had time and access to regularly log online and explore the online space gained a sense of ownership of the online discussion forum through regular participation and interaction with others. Where as, learners who did not see the learning tasks and discussions linked to their professional and personal learning goals, and who did not have time and control over IT access during the course, did not prioritise online participation.

The third research question was,

- Are silent learners or 'lurkers', who do not actively contribute to online course discussions, learning?

The deconstruction of learning cycles and preferences revealed that all participants including those who perceived themselves as silent in online discussions were actively constructing meaning and were learning from wider social contexts. The silent participants like the moderate and active discussion participants used a variety of social and individual activities, including searching for online resources, reading to deconstruct meaning from socially-situated texts, face-to-face formal and informal discussions, discussions at work, email feedback and informal online discussion, contribution to formal online discussions and reading others discussions. These activities collectively provided evidence for the silent participants' social engagement for knowledge construction. This finding challenges the idea that compulsory participation in online discussion provides motivation for online participation and enables social construction of meaning for different learners. It questions the strategies that recommend giving lower marks to non-discussion participants, as they may not be learning through visible means as required in the course design.

The research has unravelled complex issues that triggered some participants to engage in online discussions and use them as engaging tools more than others. These issues helped to formulate theoretical explanations for the differences in knowledge construction during online and blended courses. These theoretical formulations are appraised below and also answer the fourth research question,

- What are the implications for practice?

The latter section on recommendations considers how the research findings and the emerging theory can be used for developments in future online learning practice and research.

7.4 Towards a theory of online learning

Situated in the constructivist paradigm, the research concluded the importance of reconstructing the individual learning process as a whole, rather than just focusing on online discussions as the main activity. The results showed that different learners did not regard just one activity on its own, such as online discussion participation, as their main learning process. The deconstruction of twenty-nine learners' experiences concluded that each knowledge construction cycle was a complex mix of individual

and social ways of knowing, affected by their constructs of personal control and emotions. Within this mix, online discussion participation was a complex social psychological phenomenon that was also affected by the two main personal constructs, personal control and emotions.

The research concluded that the hypotheses stated in chapter one were supported by twenty-nine learners' constructions. The results supported that notion that active, moderate and silent participation in online discussions were roles that these participants adopted depending on the personal control and emotions they experienced during online social engagement. They engaged in online discussions and other learning activities depending on what gave them a sense of control and resulted in positive emotions, for knowledge construction. However, it was not conclusive that if all participants were to experience positive emotions and personal control then they would also actively engage in online discussions.

The research analysis of different learners leads to the conclusion that it is incorrect to assume that all learners will engage and benefit equally from participation in online discussions. The analysis revealed different learning preferences, social psychological processes and practical factors together explain differences in online discussion participation. These conclusions challenge the assumptions of the existing online learning strategies and Salmon's (2000) five-stage model, which emphasise online participation as a significant strategy for social construction of meaning for all learners on a course. Instead of advocating a general model for online discussion participation for all learners, like Salmon's (2000), the emerging theory calls for online course designers and facilitators to consider the variations in learners' knowledge construction processes and the influencing factors. However, the research findings and the emerging theory do not conclude that if these processes and factors are considered in course design and facilitation it would result in increased online discussion participation for different or all learners. The research evidence does suggest that considering these factors might enable more equitable, accessible, flexible and open space for knowledge construction.

The following descriptions and explanations contribute to what Glaser and Strauss (1967, 31) call a substantitive theory developed to understand the differences in

learners' knowledge construction processes and online discussion participation. The theoretical explanations can be used to manage and handle diversity in online and blended courses that include online discussions. Within this theory, the conceptual differences in control and emotions and dominance of some learners surfaces evidence of power discourses in online and blended courses. The recognition of power discourses in this substantitive theory of online learning has allowed extension of the formal theory into the conceptual area of power influences in formal online education (Glaser and Strauss 1967, 33).

It is useful to state that the theory emerging from this research includes male, female, home and overseas learners studying for postgraduate professional online and blended courses in part-time or full-time mode. Further research with learners from these and other population groups such as undergraduate learners, learners from different types of higher education institutions, and learners from pure science, humanities and arts course may confirm, refute and help extend this theoretical framework for online learning.

7.4.1 The emerging theory of online learning

The emerging theory of online learning calls for online practitioners to understand the learners, their contexts, sense of social identity and experiences to support knowledge construction, rather than focus on emphasis and judgement of outcomes based on what and how much is said or not said in online discussions. This inference resonates the basis of the personal construct philosophy, i.e. the need to make the person a central focus to understand knowledge construction rather than rely on external judgement of observable behaviours (Bannister and Fransella 1989, 29).

There are three main tenets that describe my theory of online learning and state the central focus on the learner in an online and blended adult learning context.

Tenet 1 (T1) Individual and social learning preference *Learners engage in online, offline, individual and social activities depending on their learning preferences and their construction of personal control and emotions during a learning activity*

Tenet 2 (T2) Online social identity *A positive online social identity construction is an important precursor for successful participation and engagement in online discussions for social construction of meaning in online and blended courses.*

Tenet 3 (T3) Practical and technical factors *The time for learning, Information Technology (IT) access and a sense of ownership of the virtual learning space influence control and emotional engagement during online learning activities including online discussion participation.*

The three tenets can form the basis and guides for online course designers' philosophy for design development. If these three tenets are kept in mind during course development and facilitation, the course facilitators can begin to develop strategies that can allow for differences in learners' preferences, their desire for personal control and positive emotions, construction of positive online social identities and greater control over the access and use of the online learning space. The three tenets are not independent but interrelated by the two main lenses or personal constructs that learners use to construct their learning worlds. The interrelationships between the three tenets and the two constructs, personal control and emotional constructs, describe a theoretical framework that helps to explain the knowledge construction processes and online discussion participation for different learners.

The two principal statements of relationship or hypotheses of this theoretical framework are:

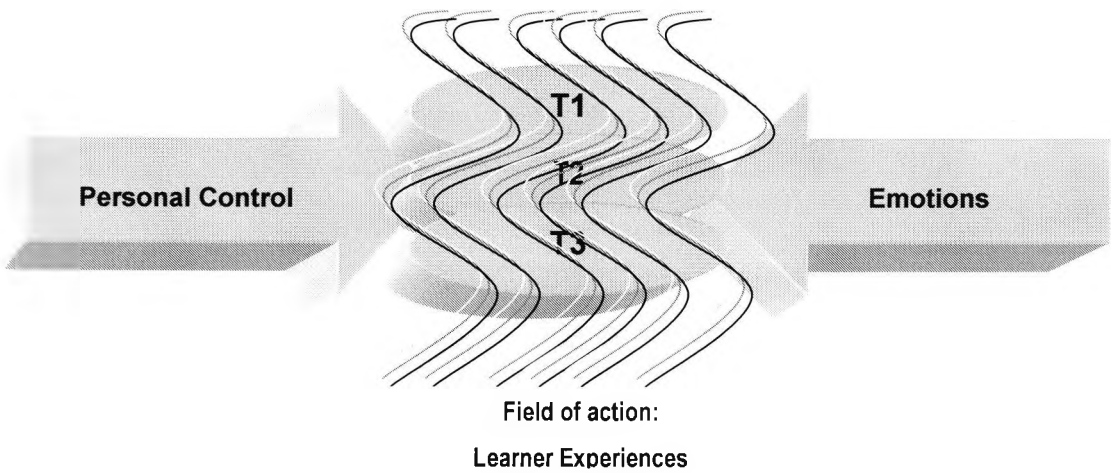
S1. *Personal control and positive emotions are the two main conditions and decisive constructs or lenses with which learners view and make sense of their learning worlds during online and blended learning.*

S2. *The different constructions of personal control and emotions are related to different learning preferences (T1), the social psychological processes for constructing an online social identity (T2), and the practical issues (T3) such as time for learning, IT access, learning space ownership and personal/professional learning goals, and lead to differences in online discussion participation during online and blended courses.*

The complexity of relationships between the two constructs and the three tenets makes it difficult to capture the model in a diagram that does not oversimplify the

theoretical relationships. Any representation would need to represent the dynamic and changing context of the knowledge construction processes, where learners' construal of learning experiences may change as their experience of personal control and emotions changes. Figure 7.1 is an attempt to capture the change in the three tenets in light of the dynamic field created due to the two main personal constructs or the lenses with which learners view their learning worlds.

Figure 7.1 Diagrammatic representation of the dynamic relationships between the main tenets and the personal constructs in the emerging theory of online learning



The representation of the relationships between the main tenets and personal constructs in Figure 7.1 is borrowed from the physical sciences explanations of magnetic force field (Duncan 1987, 288). Just as a magnet creates a field of force around it and uses it to deal with the action around it, the two main constructs, personal control and emotions also create field of action. The constructs fields of action act as lenses for the learners' experiences and affect their choices in learning. The personal control and emotions experienced during learning activities affects learners' preferences for individual or social learning activities (T1). The two constructs also influence construction of a positive or negative online social identity, which also affects the control and emotions experienced during online discussion participation (T2). The sense of control and ownership experienced due to ease of online access and time for learning online can affect the personal control and emotional engagement experienced during online and blended course activities (T3).

In this representation (Figure 7.1), personal control and emotions are represented as determinants of influences on learning and learning choices. They are not to be taken as some external forces acting on the three tenets. Instead, as personal constructs they are integral to the learners, their past experiences and their present learning experiences due to the three tenets. These constructs are lenses with which the learners view their learning worlds and decide on which learning activity to engage in. The participation in learning activities may then result in different levels of personal control and emotional depth, which in turn influences the construal of those learning activities for learning.

It is also important to note that emotions and feelings are not separate entities from personal control but are closely and complexly related to how much control learners experience during different learning situations. A sense of personal control is associated with positive emotions, and is linked to learning activities that most successfully validate or reconstruct meaning in learners' existing construct systems. Likewise, less control is associated with negative emotions. It related to the learning activities that were invalidated from participants' construct systems. This invalidation, negative emotions and less control can also support knowledge construction as the learner tries to engage in alternative activities to gain control.

Hence, the relationship between the two personal constructs and the three tenets is complex and dynamic. In this dynamic relationship, the three tenets are not represented in any hierarchical or linear order. Instead, they are closely interrelated and together influence engagement in online and blended learning. The following subsections explain what each tenet proposes for this theoretical framework, and suggests three hypotheses (H) for each tenet that can be tested against existing experience and in future research. In addition the link hypotheses (LH) help to demonstrate the relationship between the tenets. These explanations and predictions for each tenet contribute to the understanding of the online learning phenomenon for different learners and different levels of online discussion participation. They offer insights into implications for future online learning practice, which are described latter in the recommendations section.

7.4.1a Tenet 1 Individual and social learning preferences

This tenet makes a significant contribution to the theory of online learning as it highlights the complex conditions and choices involved in knowledge construction. The control and emotion constructs are the necessary conditions that influence learners' choice of learning activities and depth of engagement that they experience during different activities. The engagement in different learning activities in turn either validates or defies these two personal constructs, and either enables or disables further control and emotional depth.

Different learners may experience different control during the same learning activity. They may also have different emotional responses to an activity. The learning activities that help validate learners' previous constructions enable a greater sense of control and emotional engagement during learning. The control and emotions experienced during a learning activity also influence how and why learners choose one activity over another to construct meaning. Thus differences in previous constructions and learners current experiences of personal control and emotions result in different learning preferences. Thus this tenet explains the relationship between the differences in learners' personal control and emotions during a learning activity and learning preferences. Learners with social learning preference experience greater control and positive emotions during social learning activities that involve others in knowledge construction as compared to individual learning activities or learning alone. However, online and offline discussions may be construed differently and result in different levels of personal control and emotions for a learner with social preference.

Thus the constructions of personal control and emotions in relation to different learning preferences are not the same throughout a course or over different courses. The learners' experiences of different learning activities and their learning contexts affect their control, emotions and learning preferences. For example, learners with a keen preference for social engagement may gain personal control and emotional engagement through face-to-face discussion. In addition, learners with social preference may not experience personal control and positive emotions during online discussions. These learners may disengage from online discussions despite their preference for social learning.

Likewise, learners with individual learning preference may remain silent in online discussions, but may engage in face-to-face and informal interactions. Other individual learners may engage in online discussions to meet the course requirements, to learn from others views, to validate their personal knowledge, and to gain a sense of belonging to the learning group. Despite their preference for individual learning, they may desire a sense of belonging to the cohort and gain personal control and depth of learning through silent, informal and offline social interaction. Yet they may experience reduced control and negative emotion when participating in online discussions.

Learners with social and individual learning preferences use the social and individual learning activities, and may or may not experience control and positive emotions during online discussions. Thus not all learners who desire engagement in both social and individual learning activities as part of their learning cycles participate in online discussions during online and blended courses.

Learners on professional postgraduate courses gain greater personal control and positive emotions during participation in social and/or individual activities that are most relevant to their professional learning goals and that enable links between theory and practice. If online discussions are not relevant and do not enable theory-practice links then they are discarded from the learners choice of learning activities.

Regardless of the different learning preferences all learners desire a sense of belonging to the learning cohort, which also enables personal control and positive emotions. However, not all learners may experience this sense of belonging, control and positive emotions through online discussion participation, during a formal online or blended course. The reasons for differences in control and emotions during online discussions are explained in tenet 2.

Tenet 1 explanation above leads to the hypothesis or theoretical propositions denoted by H1, H2, and H3, and implications for practice, below.

H1: *Learners prefer to engage in individual and social activities that enable greater control and emotional satisfaction. If a learner experiences greater*

control and emotional satisfaction during individual and social learning activity, then they engage more in that learning activity.

For practitioners this proposition calls for learning strategies that allow and support learners to personalise their learning pathways, so that they can feel in control over their choices and learning processes. It also suggests the need to emotionally engage learners in the learning processes rather than expecting them to merely comply and follow a pre-designed course.

H2: *Different learners with the same learning preferences can experience different control and emotional responses during the same learning activity. Visible behaviour in activity participation or non-participation does not represent learners' preferences and the level of personal control and emotions experienced for learning.*

In practice this signifies, learners with social learning preferences may not experience personal control and positive emotions during online discussions. Learners with individual learning preferences may desire control and emotions through social interactions, but they may experience different levels of personal control and emotions during online and offline interactions. Silence in online discussions does not equate with preference for individual learning. This hypothesis challenge the notion that different learners may engage and construct meaning using the same learning activity, such as online discussions. It also warns practitioners against classifying learners as social, individual, active or silent learners, while appreciating the diversity of learners' preferences.

H3: *Learners on postgraduate professional online and blended courses experience control and positive emotions through engagement in activities that are relevant to their professional learning goals and help to make links between theory and practice.*

This hypothesis highlights the importance postgraduate professional learners place on relevance of learning activities. The course designers need to design learning activities that are relevant to the learners' professional contexts learning needs and goals. There is a need for course designers to get to know their learners' professional backgrounds and interests before expecting participation in a learning activity.

This tenet and its hypotheses suggest that the relationship between learning preferences and online discussion participation is complex. They propose that all learners do not experience similar control and emotions during online discussions. Individual or social learning preferences can lead to reduced control and emotional engagement during online discussions for some learners, but increased control and positive emotions for others. Social learning preference does not imply active participation in online discussions, and individual learning preference and silence in online discussions does not imply non-participation in social activities for knowledge construction. In addition the desire for a sense of belonging to a social cohort during online or blended courses does not mean learners will experience personal control and emotional connection through active online discussion participation.

Thus, one of the main implications of this tenet is that emphasis on one learning activity such as participation in online discussion is not a useful way of approaching different ways of knowing. The expectation that all learners must engage in online discussion for social construction of meaning indicates limited understanding of the complexity of how personal construction of learning experiences influences different learners' knowledge construction. If online learning practices are to enable constructivist and personalised learning, then practitioners and researchers need to explore, understand and acknowledge the diversity due the main personal constructs, such as personal control and emotions, and how these might affect different learners' choices and engagement activities.

Notwithstanding the significance of differences in learning preferences, this theory of online learning does not support classification and treatment of learners according to the learning preferences. It proposes that awareness of varying learning preferences and how these are related to experiences of personal control and emotions can help acknowledge the different learning choices. The awareness of different preferences and learning construction processes can then help to facilitate and support more flexible and personalised learning pathways.

Tenet 1 explanations and hypothesis are linked to tenets 2 and 3 by the following statements.

LH 1 (with T2): *The social and individual learning preferences alone cannot explain participation or non-participation in online discussions. The differences in personal control and emotions experienced during online discussions can explain preference for participation by some learners and not others.*

LH 2 (with T3): *The learning preferences and choice of learning activities are also influenced by personal control and emotions experienced due to the external conditions such as learners' employment responsibilities and time for learning, learning interests and goals, IT access and VLE ownership in a course.*

Thus tenets 2 and 3 provide additional explanations and hypothesise why despite similar learning preferences for social learning and common desire for a sense of belonging, learners differ in online discussion participation.

7.4.1b Tenet 2 Online social identity

The online social identity tenet is a significant and complex attribute of learners' self-concepts. Its contribution to the theory of online learning is the understanding of differences in formal course online discussion participation, despite the similarities in learners' learning preferences. It extends tenet 1 by adding to the explanations of why some learners experience greater control and positive emotions during online discussion participation as compared to others, despite their different and similar learning preferences.

Learners want to be able to construct a positive online social identity before they can engage in and gain from online discussion participation. They need to feel others will accept and acknowledge them in the online group. The construction of a positive online social identity during online and blended courses supports participation in online discussions. The two main personal constructs personal control and emotions and six interrelated social psychological processes explain the differences in online social identity construction. These differences in online social identity construction highlight the inequitable learning experiences due to the same opportunities given to different learners, which result in some learners benefiting more from online discussions as compared to others.

Firstly, initial socialisation to build a group identity and a sense of belonging is an important aspect for successful online social identity construction, and consequent online discussion participation for knowledge construction during online and blended courses. It involves getting to know others in the cohort, building a sense of connection and trusting relationships. Learners, including those who prefer to learn alone, seek a sense of connection and a feeling of belonging to their learning group. The emotional connections with others enable learners to feel they belong to a cohort where they can share and validate their developing ideas with others.

The initial socialisation experiences during the earlier part of an online or blended course are also significant for learners to feel either inside or outside the online group learning experience. Learners who feel a part of the online group during the initial socialisation become active online participants and consequently play a significant part in building group norms of language and content. These learners also feel more confident and in control of their online contributions. The learners who feel like outsiders, feel less connected and separate from the early part of the course experience less control and disconnection from a group, where dominant insiders are perceived as having greater influence over the norms and power in online discussions.

Secondly, to construct successful online social identities learners need to experience a sense of online social presence in the discussion space. Getting a reply and acknowledgement to online postings help learners to build such an online social presence. In addition to the emotional connections and trusting relationships built during initial socialisation, getting a response to one's messages increases confidence and motivation to contribute in online discussions. The increased confidence and positive emotions then leads to increased sense of control in the online group context and contributes to a positive online social identity for online discussion participation.

On the other hand, lack of acknowledgement and a response to one's online message can cause learners to feel judged by their contemporaries as incompetent, deficient and inadequate. This leads to negative emotions of separation and disconnection from the group where dominant others seem to be engaged in a productive discourse. The negative emotions contribute to a sense of disempowerment and reduced control over

others lack of response, one's online social identity construction and online discussion participation. These learners may impose personal control by limiting participation to required discussions. They do not benefit from online discussions in the same way as the learners who feel in control and accepted by in the online social space.

Thirdly, the desire to build a positive online social identity in a formal online space that is monitored and judged by tutors and unknown others results in learners controlling their language, content and participation in online messages. This imposed control through formal language and structuring of messages may allow learners to present themselves as competent but gives an incomplete representation of their opinions and question. The control and formality can also limit the opportunities to build learning relationships and engage in an open and challenging discourse. This control can results in contrived and definitive statements and discourse devoid of emotional indicators. Although personal control is an important construct for participation in learning activities, the imposed personal control for positive online social identity construction results in reduced depth of engagement in online discussions.

The desire for a positive online social identity means learners want to be seen in a positive light by others before they feel in control, confident and emotionally connected to share their knowledge construction using online discussions. However, if the above social psychological processes play out in such a way that some learners feel empowered and included while others feel disempowered and excluded, then different levels of control and engagement in discussions can lead to conflicts between learners' self perceptions of social identity and others perception of them. This conflict is the fourth aspect of online social psychological processes that affects online participation.

Thus in a formal online course where all learners do not connect with others and have limited knowledge of each other's goals and contexts, they may also have limited awareness of how others see them. The consequent conflicts in perception of online social identities surface power differences in the online discussion contexts. The learners, who feel disempowered due to the negative emotions and lack of control during online socialisation, view the active learners as dominant and overpowering in

online discussions. On the other hand, the learners active in online discussions may view silent learners as apathetic, with a lackadaisical attitude towards learning through sharing. Their lack of sensitivity to silent learners experiences in a context that views online discussion participation as the norm, leads the silent learners to feel even more marginalized, disempowered and separate from the rest of the group.

In addition to the above processes for personal control and emotional connection for online social identity construction, language identity construction is the fifth significant aspect of a successful online social identity. In an English academic context, the online discussions are often dominated by a few English-speaking learners who feel empowered and in control of their online contributions. The overseas and home learners, who experience reduced control, withhold participation in the formal online space due to low perceived competence in English language and online communication skills, respectively. These learners may not experience language socialisation and have the online communication skill support they need to construct successful online identities. Consequently, they may look for alternative social spaces such as informal online and face-to-face spaces, where their multilingual identities and different communication competencies are accepted.

Sixthly, learners on professional applied courses want opportunities to learn and socialise into their new or extended professional roles. As identified in tenet 1, the professional learners who experience embedded relevance of online discussions in developing their professional identity engage in online discussions. The professional learners, who want to understand links between theory and practice, and find online discussion spaces formal, rigid and narrow to discuss real life experiences with experts in the field, do not use online spaces to build professional identities.

The above explanations reveal the how the different social psychological processes influence online social identity construction and give reasons for differences in online discussion participation. The explanations help to draw out the following hypotheses as part of the emerging theory of online learning.

> H4: *Initial online socialisation, an online social presence, online communication skills, perceived language competency, and language and*

professional socialisation opportunities are important building blocks for a positive online social identity.

This proposition highlights the need for online course designers to be aware how the complexities in online social psychological processes can result in online participation by some learners and not others. The online course facilitators need to incorporate learning strategies that enable different learners to develop successful online social identities through sharing of personal identities and by creating a self-presence in an online space, where they can introduce themselves and their learning interests to others and learn about others interests.

The online courses also need to incorporate online communication skill development support and language socialisation strategies, to address the different competencies of home and overseas learners. These socialisation strategies would require learners to have a sense of responsibility to acknowledge others messages and to develop an open and respectful space to challenge each other's ideas. Thus, this hypothesis has implications for practice to include strategies and learning support for learners with different backgrounds and skills so they can have an equal chance to gain from online social construction opportunities.

H5: *The constructs personal control and emotions are necessary conditions for a successful online social identity construction. Learners who experience greater personal control and a sense of emotional connectedness during online social identity construction processes build a positive online social identity and participate more in online discussions, as compared to learners who experience less control, negative emotions and feel excluded.*

This hypothesis has implications for online designers and facilitators training. It suggests the need for online practitioners who expect learners to participate in online discussions to develop a deeper understanding of the implicit social psychological processes and constructs that are at play during online discussions. It highlights the need to use this understanding to develop strategies that allow greater learner control and sense of emotional connectedness for online social identity construction.

H6: *The online discussion space in a formal academic course is power laden and empowers some learners and disempowers others. The empowered*

learners participate more and benefit from online discussions than those who feel disempowered and out of control in the online social space.

This statement has implications for online and blended course practitioners who assume online discussion participation is a neutral and unproblematic process. It calls for the online designers and practitioners to look in-depth at the implications of including online discussions as part of a formal course. The practitioners need to realise that different learners can have varying online socialisation experiences, which can lead some learners to feel included, empowered and in control of their online social identity, and others disempowered and excluded from the online experience.

The theory calls for the online facilitators to recognise the different processes that may compound these power discourses. In formal, academic and judged online discussions, learners may control their language use, message content and structure. This imposed control leads to limited, closed and uncritical discourse, where only learners who feel empowered and in control of online social identity construction may benefit from online participation. Learners who feel excluded from the online group feel disempowered and do not benefit from online participation. In addition, the online nature of the discussion medium, lack of knowledge of others and differences in personal control and emotions experienced during online discussions result in misconstruction of social identities. These misconstructions of self and others identities can result in different levels of perceived control and power in online discussions. The power differences are further amplified in the English-speaking formal academic courses that lack opportunities of language socialisation for overseas learners, who do not use English as their first language. The dominance of English-speaking learners in the online space and reduced participation by overseas learners can create power differences between home and overseas participants.

The online pedagogy in higher education uses online discussions for open and deep discussion. This tenet and its hypotheses identify the online social identity construction processes in an academic online context that can exclude some learners and benefit others. The tenet proposes that online and blended courses designers, who assume all learners have the skills, experience and confidence to use online communication to construct a discourse, may be excluding learners who are new to

online discussions and do not have the confidence to communicate online in a formal academic context.

The differences in control and feelings of inclusion in online discussion lead to the question if formal online course discussions enable social construction of meaning for different learners. Yet, learners who do not participate in online discussions due different skills, confidence, learning preferences, levels of personal control and emotions experienced during online social identity construction may continue to construct meaning through other forms of social interactions and individual deconstruction of socially-situated texts. Thus, the emerging theory also calls for practitioners and learners to become more aware of the online social identity construction processes and how they impact on learning for online participants and non-participants. The theoretical propositions in this tenet highlight the need for further research into the significance of online social identity construction processes, language and professional socialisation and the predicted links with online discussion participation in formal higher education courses.

Online social identity construction is also influenced by the practical and technical factors within and outside the course. Tenet 2 is related to tenet 3 by the following link hypothesis.

> LH 3 (with T3): *Practical and technical factors that enable greater control over the online social psychological processes support the construction of a positive online social identity and participation in online discussions.*

The tenet 3 explanations highlight the internal and external context factors that influence online discussion participation and need to be considered in online course design and facilitation processes.

7.4.1c Tenet 3 Practical and technical factors

The above differences in learning preferences and online social identity construction processes are not independent of the learners' personal contexts such as their professional roles, time for learning, ease of IT access and a seamless VLE access. Tenet 3 adds to the theoretical explanation of how these practical and technical factors enable or disable control and influence online social identity construction, online

discussion participation and the choice of learning activities for knowledge construction.

The time element is crucial in enabling learners to take up online socialisation opportunities and construct positive online social identities for consequent online discussions. Professional adult learners in part-time or full-time employment prioritise learning tasks according to professional learning goals, interests and time for learning. The shortage of time and requirement to fulfil pre-defined course requirements results in reduced or selective online discussion participation and also reduces opportunities to explore areas of personal interest. Learners, who are studying full-time without employment responsibilities have time to explore personal areas of interests and socialise online, are more frequent online participants.

Learner control over IT access during the online and blended control also influences online social identity construction. Learners, who have control over IT access at work or at home have easier IT access, have more opportunities to engage in ongoing course discussions. These learners may engage more in online discussions despite their different individual and social learning preferences. On the other hand, learners in subordinate positions at work, with limited control over regular IT access are occasional visitors to the online discussion board and get limited opportunities to build online social presence and positive online social identities.

The online and blended learners in formal education courses perceive limited control and ownership over the university-run, password-protected Virtual Learning Environments (VLE). Nevertheless there are learners who have established some control over VLE ownership through initial access and an online response to their message. These learners have greater opportunities to feel included in the initial online socialisation, and their control is enhanced as they develop an online social presence and construct an online social identity. Others who have difficulties in initial VLE access, due to password or software issues, become excluded from the initial online socialisation and have limited control over creating a sense of belonging and a successful online social presence. Thus, initial VLE access plays an important role in facilitating online social identity construction and subsequent online discussion participation.

Subsequent interactions and use of the VLE space can also help to build reliance, a sense of control and trust in the virtual learning space, or it can lead learners to seek alternative social spaces where they can interact with peers more openly and without the fear of being judged as inadequate. The latter is common and includes learners communicating offline, via one-to-one emails or using external discussion spaces not accessible by the course tutor or the institution. Professional learners may view these informal interactions as more beneficial and flexible to engage in discussions on similar learning interests and to link personal experience to theory.

The above practical and technical factors lead to the following hypothesis that can be tested in future research and practice.

> H7: *Professional learning interests, time for learning around work, control over IT access and seamless initial VLE access are important factors influencing engagement in social psychological processes, which support construction of a positive online social identity and online discussion participation.*

This hypothesis has implication for online designers, learning technologists and learning administrators. There is a requirement to design courses that allow learners to incorporate personal learning goals and develop their different professional learning interests. The course designers and facilitators also needs to account for learners varying time commitments, professional and other responsibilities that can affect the time they allocate to learning online. The learning technologists and administrators need to be more aware of the differences in IT access for different learners, and aim toward a provision of seamless VLE access. These considerations are important if different learners are to have equitable opportunities for online social identity construction.

> H8: *The differences in control over time for learning, IT access and VLE access lead to inequities that cause some learners to engage and benefit more from online discussions than others.*

This proposition highlights the learners' desire for spaces where they can feel in control and have a sense of ownership to engage openly. Although the e-learning rhetoric suggests inclusion of technology can support learning anytime, anywhere and

anyplace according to learner choice, this statement suggests that in practice the technology may be benefiting some learners more than others. It may enable more control for some learners than for others. Thus in practice it is not sufficient to take account of the differences in practical and technical factors that affect online social identity construction. This hypothesis challenges designers and administrators to construct strategies that allow learners a feeling of control over the virtual learning space and time.

> H9: *The university-controlled virtual learning spaces are less flexible and less open for meaningful discussions for professional learners who have limited time and diverse learning goals. The formality and lack of control over virtual spaces can result in disengagement from formal discussions and engagement in other forms of informal social interactions.*

The notion of flexibility implied in the above hypothesis includes learners desire to emotionally safe, non-judgmental and inclusive social learning contexts that can accommodate their professional learning needs and other commitments. In practice, tutor-requirement and judgement of online discussion participation can lead some learners to experience online discussions space as hegemonic, externally controlled, emotionally devoid and un-representative. These experiences of the online space are in opposition to the purported e-learning rhetoric.

Raschke (2003, 7) states there is not a head or central locality of power in the Internet. However, there remains difference between the aspired online learning space and different learners' experiences in higher education. By emphasising certain activities like online discussion participation, the formal online educators may be acting as the central heads calling for localisation of control. The control that learners could have experienced in an open and more global online network has shifted towards a localised, University-controlled VLE space that supposedly had more knowledge than outside!

This tenet and hypotheses evoke the urgent need to re-examine the popular interpretations of constructivism advocated in courses that emphasise online discussions. Rather than allow the online communication technology to lead the goals of learning, there is a need to build on critical questions of who are the learners, what

are there contexts, and how do they learn? It also suggests the need for universities and educators to re-examine their purpose and position in relation to the contemporary influences on knowledge and knowledge networks.

This theory and its tenets identify the need to extend the meaning of flexibility in learning to include not only anytime, anyplace online access of the learning material, but also learners' learning preferences, opportunities to share professional intersubjectivities, their language and online skill diversity, professional learning goals, employment responsibilities, time for learning, control over IT access and ease of VLE access during the course. The theory concludes, online and blended courses that continue to discount learner differences may benefit the learners who fit into the course needs, and disengage others who find it difficult to fit into the course expectations.

The theory has generated testable hypothesis that can be examined in future empirical research, and used to extend the current theory. The tenets and hypotheses of this theory demonstrate the complexities involved in using the online medium for social construction of meaning. They also challenge the assumption that online discussion provision in an online or blended course results in social construction of meaning for different learners. The following section discusses the emerging theory of online learning in light of the commonly used Salmon's (2000) five-stage model. The critique of Salmon's model in context of the emerging theory aims to demonstrate the gap between the contemporary acceptance of online discussions as tools for social construction and the challenge these tools present in light of how learners engage in online and blended courses.

7.5 Implication of the theory for Salmon's five stage model

The theory of online learning outlined above is a constructivist theory grounded in the findings of a research that was driven by the constructivist paradigm and a constructivist methodology. In this paradigm the theory outlines a framework of online learning based on how learners experience and construct meaning, rather than on how the tutors and online developers might expect them to behave. In contrast with

commonly cited Salmon's (2000) five-stage model this theory does *not* offer a model for online discussion participation, which expects learners to behave in certain ways and respond to the teaching strategies. Instead it is a theory that provides practitioners with explanations and statements of relationships to understand learning processes and online discussion participation for different learners.

Salmon's (2000, 23) model is also based on her action research of the Open University's Masters in Business Administration course online discussions. Interestingly, her research also drew on Kelly's personal construct theory (Salmon 2000, 24) but limited its application to content analysis of the online messages to identify the main aspects of learning and teaching they represented. She also used focus groups to gain qualitative data to verify her model to use online discussions for knowledge construction (Salmon 2000, 25). Unlike my research, Salmon did not examine knowledge construction processes as a whole for online discussion participants and non-participants.

Salmon (2000, 23) states that her purpose was not to establish a theory but to use her model to problem-solve for use in future courses. Yet her model is grounded in empirical research findings and can be challenged by emerging understandings of the online learning phenomenon. Here I use my theory to challenge the popular use of Salmons' model and call for practitioners to view online learning and discussions as complex phenomenon that may not always result in social engagement for different learners. Learners may use alternative means of social constructions, other than prescribed in the online or blended courses

Salmon's five-stage model is repeatedly cited in literature and many reviewers have praised the model (Crichton 2004, Dougherty 2004, Eastmond 2003). The praise is commonly directed at her style of writing and the simplicity of a staged process that persuasively sells her model, while at least mentioning most eventualities and issues online facilitators face during online discussions. Yet these eventualities and issues are merely mentioned. There is an assumption in her discussions that these issues will be addressed if the model is used as described. The issues of emotions, creating and sharing online identities, differences in knowledge construction processes are mentioned but not discussed for their implications for online participation in any great

depth. According to her model, access, motivation, online socialisation and information exchange stages lead to knowledge construction and personal development stages (Salmon 2000, 26). She states,

> *"Given the appropriate technical support, e-moderation and a purpose for taking part in CMC (computer mediated communication), nearly all participants will progress through these stages...The chief benefit of using the model to design a course with CMC is that you know how the participants are likely to exploit the system at each stage and you can avoid the common pitfalls. The results should be higher participation and increased student satisfaction" (Salmon 2000, 26).*

Many have criticised the model's applications and its unfortunate terseness (Downes 2005). Others have questioned Salmon's (2000) interpretation of constructivism in education contexts where learning outcomes are pre-determined (Eastmond 2003). Walker (2006) describes the e-tivities recommendations based on the five-stage model in her recent book (Salmon 2002; Salmon 2000, 18) as making great claims. He states that her discussion hype online discussion technologies, than is realistic, acceptable and deliverable in the post-dotcom crash era. Moore (2002, 22) calls for the need to question Salmon's (2000, 19) claim that CMC challenges traditional hierarchies and cerates opportunities for more equal participation for minorities. Moore (2002, 23) also points to Salmon's limited experience and discussion of the dominant linguistic norms in an online context. Her model fails to account for the dominance of one language in the online context that can exclude learners who do not use that language as their first language and learners who have limited online communication experience and confidence.

While Salmon (2000, 36, 44) claims her model is based on the view that learners construct meaning through social interaction, she disregards other social and individual ways of knowing. Instead she assumes socialisation, information exchange and knowledge construction can take place in a staged process in the formal online discussion context, for different learners. The three tenets of my theory refute the assumptions made in Salmon's (2000, 26) model that all learners can equally engage in online discussions to construct meaning from social discourse. Instead, the theory demonstrates that the learners may engage in different individual, social, formal, informal, online and offline activities that enable social construction of meaning. In

addition, learners who are silent in online discussions may still be engaged in social discourse and social construction of meaning through engagement with others and socially situated texts. The explanations given in my theory support the argumentation that Salmon's (2000) model is linear, simplistic and lacks a constructivist perspective. The five-stage model fails to account for differences in learners' experiences, preferences and contexts that influence control and emotions to engage in different activities including online discussions.

I agree with Salmon's (2000, 28) consideration of the significance of online socialisation during the early stages of online discourse. However, she does not go into any detail about emotional issues that can become grounded in the learners' constructions at this stage. Her discussion acknowledges the importance of time and opportunities for learners to feel 'at home' with the online culture (Salmon 2000, 29), yet assumes that in an online context,

> *"Participants can disagree without arousing excessive emotion, they can debate without clashes apparently based on conflicting personalities and without shyer individuals having to 'fight their way in' (Salmon 2000, 28).*

While she appears to view emotional connectedness in the early stages of online communication as important, she assumes online discussion space is neutral and has equal opportunities for all learners. She suggests 'lurking' or silence in the online socialisation is an acceptable behaviour at this stage (Salmon 2000, 29), but needs to be discouraged during the information exchange stage (Salmon 2000, 136). These perspectives lead her to miss out the complex emotional and control constructs that play a significant role during initial socialisation to enable construction of an online social presence and a positive online social identity, for engaging online discussion participation.

In contrast, the emerging theory of online learning views different levels of participation in online discussions not as (acceptable or unacceptable) behaviours, but as roles where learners are trying to make sense of their own and others outlook. This view allows the opportunity to surface the significance of emotions and personal control during initial socialisation to construct a successful online social identity. It enables a better understanding of how the differences in personal control and emotions due to different socialisation experiences lead some learners to build

positive online social identities and engage more in online discussions than others. In practice, this perspective can help online facilitators become aware of the power discourses influencing online discussion participation.

In Salmon's (2000) model there is an assumption that once the learners have socialised through online discussion participation, they will be able to share information and construct new meaning. She does state that some learners may need more time than others to engage and socialise in the online medium, yet the model offers limited consideration of the variations in social psychological processes due to the online and text-based nature of the communication medium. Salmon (2000, 2002) describes the new role of the tutors as online designers and e-moderators to ensure equitable online access and information exchange opportunities. However, her model and discussions do not consider how tutors could begin to consider differences in learning preferences and complexities of online social identity construction processes, which precede and influence control during participation in online discussions. The model fails to account for the significance of getting an online reply to one's messages that can result in some learners feeling inside and others outside the online learning cohort. Instead she recommends, *"rename 'lurkers' as 'browsers' and worry less about them"* (Salmon 2000, 137)!

One the other hand, the theory outlined above reveals initial socialisation and creating an online social presence as important social psychological processes for individual learners' online social identity construction. These processes also affect and are affected by the two main lenses of personal control and emotions with which learners view their learning worlds and make meaning. The theory also identifies online social identity construction processes as important pre-requisite processes for online discussion participation, but it chooses not to describe them in sequentially separate stage as in Salmon's (2000) model. The processes are complex and share the constructs of personal control and emotions, which suggests online social identity and online participation processes are closely interrelated, overlapping and similarly construed in the learners' psychological spaces.

According to Goffman (1990, 220), who studied face-to-face interactions and self-presentation in a social context, the different components of successful self-

presentation in social context remain largely invisible. The processes and components of online social identity constructions surfaced in the above theory may also remain invisible to the tutor facilitating and judging online participation. In contrast with Salmon's (2000) staged model, the explanations and hypothesis in my theory offer practitioners with an insight into the hidden online social identity construction processes and the complexity of the online discussion phenomenon.

While contemporary practices continue to highlight the lack of online discussion participation by online learners, Salmon's (2000, 136) model provides limited insight into reasons for silence in online discussions and its implications for online and blended course facilitators. Her suggestion is that there are three different kinds of *'lurkers'* (Salmon 2000, 136). The first group includes learners who lack access, skills or confidence to participate online. She describes the second group as *"the sponge"* – people who need more time to come to terms with the norms of online communication. The third group is the *"silent thief or the freeloader – people happy to use others people's contribution rather than feeling the need to contribute...these people need a requirement to take part"* (Salmon 2000, 136). Her discussion does suggest the possibility that 'lurkers' may be learning (Salmon 2000, 80) and that dominance of more active participants may discourage others to contribute in discussions (Salmon 2000, 81). Nevertheless, her model does not recognise dominance of some learners and power differences in online discussions, and the impact these differences can have on learners' control, emotions and learning engagement.

Salmon's (2000, 136-7) conclusions about lurkers lead her to recommend additional monitoring and compulsory requirements for online participation. Her suggestion, "*try to humour rather than anger (e.g. don't be a lurker-be a worker)*" (Salmon 2000, 137) not only judges 'lurking' as an undesirable behaviour, it is also based on a limited understanding of reasons for differences in online participation. On the other hand, the power influences and personal control differences during online socialisation processes in my theory call for practitioners to become more aware of the detrimental effect of judgemental monitoring and measurement of online participation on online social construction of meaning. The theory explains that in an online discussion context where tutors are monitoring and judging performance all

participants want to create a positive impression, the result is formalised and controlled textual presentation. The latter does not facilitate emotional depth in discussions and results in an uncritical, limited and closed online exchange leading to learners' disengagement from online discussions.

Another critique of Salmon's (2000) model is its limited recognition of differences in IT access which can lead to inequities in learning processes and result in learners' feeling reduced control over the IT space for online interaction and construction of an online social identity. Although she identifies the need to acknowledge feelings surrounding use of technology (Salmon 2002, 14), her model fails to consider the issue of ownership of the institution-led virtual learning space, and how the authority of the online tutor or e-moderator can deter a sense of control to contribute to rather than conform to the norms of the online social space. In contrast, my theory of online learning identifies IT access is important not only to demonstrate learner's ability to send a message in early part of the course (Salmon 2000, 27), but also to build control and a sense of ownership over the online learning medium, throughout the course.

Salmon's (2000) model also ignores the language socialisation and enculturation needs of overseas learners who do not use English as their first language. She states that the online spaces allows minorities to flourish but does not support this with any empirical evidence. In contrast, my research findings concluded that overseas learners were mostly silent in online discussions because they did not feel online discussions helped them to share and reconstruct new linguistic identities as overseas learners in the UK. Instead online course discussions were dominated by the norms of the dominant and more competent English speakers. This finding challenges Salmon's assumption of equality in online discussions and calls for further research into overseas learners engagement in online courses using a dominant language.

Within the constructivist paradigm my theory does *not* advocate practice that focuses on one way of knowing. Neither does it endorse classification of people according to their learning preferences or different levels of online participation. Instead its interrelated tenets and hypotheses construct learning as complex, variable and different for individual learners. It shows the learning processes and choices may vary for the same or different learner depending on learning conditions and consequences

of experiences on the learners' personal construct systems. It demonstrates online and blended learning in postgraduate courses brings into play powerful constructs, personal control and emotions as learners strive to construct online social identities. It shows that imposed control and emotional influences can also limit meaningful and complex interactions and result in formal and superficial exchange to meet tutors' expectations.

The discussion of the theory and above critique of Salmon's model leads to two main conclusions. These are,

- online discussion participation is not the sole measure for social construction of knowledge in online and blended courses
- the social psychological processes and personal constructs of control and emotions that influence online participation provide evidence that online discussions for learning are more than isolated, mechanical processes for textual exchange.

These two conclusions are almost contradictory, yet this contradiction leads to the similar recommendations. The first conclusion calls for more equitable learning opportunities that consider participants with alternate preferences and learning contexts. The second calls for the need to look beyond nominal improvements in online discussion tools and applications. The suggestion is for online and blended course educators to get to know their learners, perceive their learning processes as a whole, and use and manage online discussions as part of that more holistic and individualised process. The two conclusions also call for a change in the way institutions dish out courses under the 'one fits all' ideology. These conclusions and recommendations come together in the proceeding sections.

7.6 What does this mean for practitioners, learners and institutions?

The following sections draw from the research results and the emerging theory of online learning and make recommendations for online course developers, facilitators, technologists, administrators, learners and institutions.

The research findings and conclusions recommend course designers and technology developers to think differently and learn about the potential learners. There is need for designers and course facilitators to envisage and build course design from the learners' perspectives, with consideration of diverse backgrounds and influences. The emerging theory recommends rethinking of course design and future online pedagogy research with reference to these questions.

- ➔ How do different learners engage to construct meaning?
- ➔ What are the different learners' personal and professional contexts that may affect their engagement in the online and offline learning?
- ➔ Why are some learning strategies and learning processes such as participation in online discussions emphasised more than others?
- ➔ Does the emphasis of particular learning strategies disregard different ways of knowing?
- ➔ Do the popular learning strategies disadvantage different learners? If so, how can more equitable opportunities be created?
- ➔ How can IT assist in supporting equitable learning opportunities for different learners?
- ➔ When is technology not a good idea?
- ➔ How can the learners and academics influence new technology development to benefit different ways of knowing?

Recently there has been an increase in similar learner-focused questions being asked in e-learning research. In early 2005 the Joint Information Systems Committee (JISC 2005) in the UK launched a new theme titled 'understanding my learning' and commissioned research to gain a perspective of the online learners. The Committee acknowledged the need to include the voices and experiences of the learners in the future online and blended learning developments. There is a need to extend this enquiry to different learner populations including undergraduates, learners from humanities and pure science subjects, learners from further education vocational and applied subjects, non-traditional learners with limited formal education backgrounds, and learners from different social, cultural and language backgrounds.

The theory of online learning justifies the need to make understanding learners a part of the future course philosophies and learning strategies. The theory invites testing of

theoretical propositions in further research. The main recommendation for course designers and facilitators who want to gain from this theory is to focus on their learners' needs, contexts and backgrounds to develop flexible learning strategies in light of the three tenets. The future online and blended learning strategies need not be limited to online discussion participation as main way of social construction. There needs to be an acknowledgement and promotion of diverse ways of knowing, where online discussions are regarded as one of the many learning strategies for social construction of meaning. The increased awareness of online social identity construction processes and related influence of practical and technical factors on personal control and emotions can help create opportunities that allow shift of control and power among learners with different preferences and builds a sense of belonging and a positive identity in the course. The following subsections provide examples of how the emerging theory of online learning can be used in practice.

7.6.1 Personalised learning environments

Online learning provides immense opportunities for learner-directed learning. Yet the higher education courses continue to upload pre-defined learning materials, at intervals defined by the tutor, and emphasise participation in prescribed learning processes. This research and the grounded theory have surfaced central importance of learners' desire for personal control over their learning goals, processes and learning pathways. As the theory tenets 1, 2, and 3 propose, this control can be enhanced if

- learners feel a sense of ownership of the learning space;
- learners are able to negotiate flexible access to learning material around external responsibilities;
- learners are able to choose learning pathways and activities according to their learning preferences and professional learning goals;
- learners are successfully able to construct positive social identities and feel a sense of belonging to the learning cohort.

The emphasis on personal control in the emerging theory coincides with the changes in focus on knowledge construction in the wider world. Siemens (2004) argues that as the half-life of knowledge (i.e. the time span from when knowledge is gained to when it becomes obsolete) reduces, the methods of teaching and learning need to shift from

know-how and know-what to know where (i.e. understanding of where to find new information and construct new meaning). This shift in emphasis on learning and the theoretical tenets call for online learning strategies that can enable professional adult learners gain control over the learning tools, to seek out knowledge and construct personalised learning pathways. In this context, learners may desire personal control alongside structure and guidance. Thus future learning strategies need to provide support and guidance for learners to construct personalised learning environments.

The Joint Information Systems Committee (JISC) in the UK, the Sakai open source project in the USA, and many other software-educationalists (Cristea 2003) are already working on software and pedagogical strategies that can enable more personalised learning pathways for adult learners in formal education. These strategies rely on online learning style questionnaires followed by automated or tutor-identified learning materials and activities to suit that learning style (Smith et al 2004). This form of personalisation is tutor-led and may go some way towards helping learners to feel some sense of online social presence and have access to a learning structure. However, this pre-definition of learners' pathways would be based on the tutors' and automated systems' reconstruction of the learners' profiles. It may lead to tutor and system control over resources and types of learning activities assigned for the learner, rather than increase learner control.

The recommendation of the emerging theory for online designers is not to develop different learning pathways, but to enable their learners to build a sense of control over their learning and allow them to construct their own learning pathways. In such a scenario the tutors' role would be to facilitate and manage diversity in the learning processes. Recent developments have also included the use of learner-led personalisation technologies in higher education. The examples include e-portfolios (online personal and professional profiles with space to reflect and demonstrate learning outcomes), weblogs or blogs (reflective journals published and shared on the Internet, Downes 2004, 14)), and wikis (learner-controlled online collaborative and project management tools, Schwart et al 2004) (see Glossary). In principle the learner controls these tools. If integrated well into the course, these learner-led technologies can allow spaces for construction of individual online identities. Learners could use e-portfolios and personal online blogs to share their online identities, professional

backgrounds, learning goals and pathways with each other. Facilitation of learner-led collaborative projects using wikis could also enable an online space where learners feel a sense of ownership and control over negotiation of topic and contributions.

No matter what technologies are used for personalised learning, the level of control experienced by the learner would continue to depend on how the learning institutions and the online tutors chose to control, monitor and judge learning through these processes. As shown in this research, tutors' authoritative roles, emphasis on judgement and monitoring of the learning processes, would formalise the processes and reduce possibilities for flexible, open, and meaningful social construction. In a monitored space, the use of the above learner-centred technologies may also result in power discourses similar to online discussions where some learners may feel empowered while others may feel excluded. In a knowledge-based economy, these inequalities may continue to enhance opportunities for creativity for some and not for others.

Similar personalisation technologies used in the wider world are recognised as enabling control for individuals and groups (Downes 2004, Schwart et al 2004). In formal education the online learning strategies have thus far been technology-led and institution-led with a top-down approach. The new personalised technologies continue to be developed with limited recognition of the different ways of knowing and main personal constructs highlighted in this theory of online learning. It is recommended that the future personalisation technology development involve the learners at the forefront, acknowledge diversity in knowledge construction and construct strategies that understand learners' need for personal control and emotional engagement for knowledge construction.

The technology and educational developers also need to recognise the complexities of professional adult learning in technology-led spaces. They need to recognise that all learners may not have similar IT access and online skills. This recommendation calls for the online facilitators and learners to have an impact through action research and ongoing critical evaluation of the emerging technologies. This does not imply that personalised technologies will somehow achieve a state of perfect learning and a sense of control for different learners. In a constructivist paradigm, learning is an

evolutionary process and is supported through ongoing change. This suggests the development of learning strategies and tools that support learner-centred learning needs to be ongoing too. This is because as the technologies and learning tools develop the learners' expectations and social contexts will also change.

In light of tenet 3, it is recommended that future courses allow professional learners the opportunity to negotiate flexible access to learning resources and accommodate time for learning around work, personal life priorities, and course requirements. One learner in this research suggested the possibility of online course mediators between busy tutors and students. Learners could discuss individual learning circumstances and negotiate completion of course projects and assessments, with these mediators who could also provide further support for learning. Such personalisation of learning would be a two-way process and would require learners to take responsibility of their learning time, processes and achievements. The online and blended course tutors could also show greater awareness of the issues affecting learners in employment, and be more open to negotiation of learning schedules to ensure depth of engagement in areas of learners' interests.

7.6.2 Recommendations for online socialisation

The theoretical tenets pose a challenge for course designers as they suggest learners have different learning preferences, desire control and also desire the need to construct positive social identity and feel part of a learning cohort. This calls for learning strategies that can balance opportunities for individual control with social construction, and allow more open and free negotiation of meaning. This section makes recommendations for facilitation of socialisation, where the learners can reveal and explore their learning goals and preferences.

Tenets 2 and 3 indicate the courses that wish to encourage discourse need to allow space and time to build a feeling of community and involvement. Apart from being able to personalise individual learning space, the participants need to have time to explore the online and offline social spaces and become familiar with them. The familiarity with a social space may include knowledge of the possibilities and limitations of the communication tools and knowledge of others in the social space.

Apart from the icebreakers to get to know others, the online socialisation also needs to involve opportunities to create a sense of social presence in the online space.

Thus, online and blended courses need to provide extended time for online socialisation and to include more than the mere introduction of online tools. The recommended online socialisation would aim to enable some level of personalisation of the social space, through introductory e-portfolios or sharing learning and work interests. It would need to allow time to build a feeling of safety in the formal online context to construct an online social identity. The aim of the socialisation exercise would also be for the learners to get involved in sharing intersubjective understanding, building group norms and not just accepting the norms of the dominant majority. The following aspects may be considered during the initial stages.

Firstly, the course designs need to recognise that there may be many ways in which the learners involve others in their learning. Instead of imposing tutor-monitored online discussion as the main form of socialising, they need to acknowledge and promote diverse ways of sharing and negotiation. For example, face-to-face meetings, discussions at work, exchange of text-messages, telephone numbers, and email addresses.

Secondly, an online or face-to-face induction may include online socialisation strategies where the learners introduce each other and have time to get to know each other. They may also develop their group guidelines on how to challenge each other and disagree with each other during the course. The introductions may include the general civilities, welcomes and introductions. The learner-led guideline development may include issues regarding the level of formality, grammar, critical thinking, challenging others opinions, and inviting questions. The aim of these activities would be to develop shared identities and a shared sense of ownership of the learning space. It may also involve participation in initial activities to help the learners' practice and develop new skills, to be open to challenge others and be challenged by others, while being respectful and acknowledging others' views.

The tutor's role would be to provide the learners with guidance on how to prepare an online message. Open discourse may be role-modelled by the online tutor, who would

also raise awareness of the impact of formalising language and using unfamiliar tones. The tutor could encourage an open dialogue that is inclusive of different language identities, professional goals, external responsibilities and varying levels of IT access and skills. The dialogue can be focused to encourage learners to think how these issues may impact their or others online participation, and how they might be able to facilitate inclusion of colleagues from different language and skills backgrounds. These processes can facilitate the learners to develop strategies for open and safe online discussion participation.

Thirdly, if the aim is to engage learners in a discursive exchange, it is important to work towards a group identity where they can identify with some common goals and purposes. The course induction will need to include activities that allow learners to share intersubjective understanding of each other's contexts and learning goals. In any course individuals meet complete strangers, and overtime may become long-term friends. The findings in this study suggest that informality, knowledge of others and replies to online postings represent the beginnings of successful online relationships. The face-to-face workshops can support sharing of contexts and goals for online relationship development. The use of photographs, talk bubbles, and video conferencing are additional ways of encouraging informality and closeness. Additional research is needed into more effective use of strategies using multimedia and varying symbolisation, for online learning relationship development.

Fourthly, in this research as described in tenet 2, the learners desired validation and responses to their postings. This was important for their sense of connection with others and an online group identity. Goleman (1996) indicates the need for emotional intelligence for individuals to recognise others needs and to respond to them. It is harder to recognise emotions and other needs in an online context. Online icebreakers that allow exploring commonalities and nurture collective identities can help learners to find an online buddy and feel that emotional connectedness through exchange of emails or telephone conversations (Bentley 2001, 170). A game or an activity that engenders as sense of responsibility to respond to another person's online postings in the formal online discussion group can be developed to help learners experience a sense of connection and positive emotions in the VLE space.

The research findings suggest limitations of the text-based online space for open communication and a learning discourse. Further research is needed to examine the links between human communication and relationship building processes in online learning spaces.

7.6.3 New technologies for online socialisation

Tenet 3 calls for the need to learn from real-life use of Internet to develop technology-enhanced experiences in formal education. There are already a host of new interactive technologies, games and simulations that could be used to support individual, group and social identity constructions. One such development is a virtual world peer-to-peer model that uses the design of multiplayer online games, but enables each player rather than a central server to have control over their roles (Borland 2005). The free open source system is called Solipisis (Borland 2005). In the system, each user has control over establishing and developing their own identity in a virtual system, where they can visualise their connections with others. This visualisation helps to enhance connections as individuals invite and meet others' digital representations in personal (virtual) rooms.

This is contrast with the currently used linear and often tedious exchange of text through email or discussion postings. The Solipisis system aids the awareness of the social connections in a virtual space and tries to mirror the real world connections. According to the developers, the technology still does not represent a space where individuals could experience being inside a three dimensional virtual world with others (Borland 2005). However, it does provide opportunities to construct social and personal identities, and share intersubjective information in a personalised virtual space with others.

The new and existing strategies for online socialisation need to be studied and critiqued for their effectiveness in enabling group and social identities in the formal education contexts. If the above-mentioned technologies for personalisation and socialisation are to have an impact, it is recommended that they involve not just technologists but also potential learners and tutors in the research and development stages.

7.6.4 Online socialisation for overseas learners

Recent studies in second language usage in online discussion have highlighted overseas learners may not participate in English online discussions as much as the home learners from the English speaking nations (Biesenbach-Lucas 2005, 40). Lams (2004) and Bloch (2004) have shown that overseas learners may use English differently in online spaces. Their 'different' English usage may be discouraged in the formal online discussion space, which is dominated by learners confident in English grammar usage (Lams 2004). These findings coincide with tenet 2 and my research conclusions that formal online discussion tools did not encourage language and cultural identity construction for the overseas participants. The future practices need to develop research and practice strategies to enable language socialisation and enculturation activities for learners form different language identities.

The online socialisation strategies need to account for the growing internationalisation in higher education courses. If a course has overseas learners, who do not use English as their first language, one approach may be to encourage home and overseas learners to share past learning experiences in their home countries. This socialisation can also encourage sharing of diverse language identities where the participants can feel freer to express themselves in English language regardless of their perceived social and lingual competence. Knowledge of presence of overseas learners can encourage the competent English speakers to acknowledge and accept the different usage of the language in online course discussions. This acceptance can be role-modelled by the tutor. The course can also incorporate and encourage opportunities to communicate in informal online and offline settings, where the learners can learn about each other and the socio-cultural norms of language and academia in a foreign country.

Research into online English usage by second speakers of the language is sparse in the sociology and education. Further research is needed to develop strategies that may enable overseas learners to share cultural norms and socialize in an online space where others appear to be socially competent in English language.

7.6.5 Professional identity construction

As identified in the three tenets of the emerging theory, learning activities need to be relevant to learners' professional learning needs and goals. For instance, learning activities can represent a rehearsal of the learners' professional roles. The research also identified the importance of informality to share experiences and build links between theory and practice. Inviting professional learners to share examples from their professional practice can help to deconstruct professional identities in a social context and learn about other's professional roles. Bringing in examples and visiting online speakers from the current professional practice can increase relevance in learning. However, this relevance may not be meaningful unless the learners share a sense of professional identity and goals.

The learners can use blogs and e-portfolios as part of the learning process to produce shared representations of their current or expected roles. As in real life online communities, where individuals develop websites and links with others through social networks, the learner-generated personalised spaces can result in learner-negotiated communities within or outside the course. Such learner-generated spaces will need to represent learners' professional experiences rather than the course content (King and Dunham 2005). This online sharing of professional goals and identities can support ways for evaluating and cultivating past learning, and exploring new areas for learning and development (Hawkes, 2001; Twigg, 2001).

While case studies, practice scenarios, problem and enquiry-based learning are commonly used for theory-practice link; further research is recommended for the development of integrated online and blended learning design. Much can be learned from research in real-life online contexts into how online communication technologies in formal courses can support professional socialisation and communities of practice.

7.7 Taking account of the practicalities

Tenet 3 in the theory identifies the need to take account of the practical issues related to the learners' time, IT access, and skills before the start of the online or blended courses. The above recommendations for personalisation and socialisation will be

ineffective in enabling personal control and social identity construction if learners have limited control over IT access and have limited IT skills. If new courses designs and technology do not consider these issues they will continue to empower some and disempower others.

7.7.1 Ensuring control over IT access

According to the emerging theory, regularity and ease of online access is one way of assisting learners to feel in control over their individual and social online interactions. The course designs can negotiate easier IT access for learners whose contexts give them limited control over these aspects. In particular, the learning technologists and course administrators could work with employers of potential learners and negotiate regular and easy access to IT at work for learning purposes. There may be possibilities for online distance learners to negotiate regular IT access at a local library or at a resource centre in a nearby college or university. This form of access may become more important as more distance and overseas students sign up for online courses while studying in their own regions or countries. It is recommended that higher education institutions learning resource centres work with external online and offline organisations to develop agreements for regular online access for their distance learners.

7.7.2 Ownership of virtual learning space

The courses also need to ensure that VLE administration is reliable and its use enables participants to gain a sense of ownership. It is recommended that online and blended courses test out and distribute VLE passwords, logins, and check software compatibility with the learners' place of IT access before the actual start date of the course. This may give time to iron out any problems for initial VLE access so that learners do not feel left out from the initial online discussions and socialisation.

More competent and seamless administrative support is recommended, where personnel understand the impact of initial disruptive experiences on learning engagement. It is inevitable that despite much endurance technology will have disruptions. If there are technical difficulties during the course, the courses may consider alternative online or offline access to the learning materials and

communication strategies. The learners need to be aware of these alternatives from the beginning of the course. In addition, the learners may also be involved in VLE development and evaluation meetings. The latter can increase their sense of control and influence over the learning space.

7.7.3 Preparation for online learning

In this research, variable online communication skills affected equity in online communication. It is recommended that online and blended course provide a pre-induction course that allows potential learners to check and develop their basic IT and online communication skills.

Although these online space inductions were included in the courses in the present research, they took place during the course. This meant that by the time the participants started the course, there were already some learners who were more competent in using the online communication tools than others. The John Hopkins School of Public Health provides a useful example of a pre-course free induction led by an information technologist. The free course is an entry requirement for all learners contemplating Masters level online study at John Hopkins (JHSPH 2005). The pre-course induction includes learning skills for online discussions with other potential learners contemplating enrolment. The online team at JHSPH perceive this as useful marketing tool, which supports skill development and socialisation of potential learners (Gulati 2004). Similar pre-induction courses can be developed and evaluated by education institutions and could include skill development for new technology use and for new learner needs.

7.8 Recommendations and implications for online tutors

The above conclusions and recommendations point to various challenges for online tutors, course designers, learning technologists, administrators and learners. The recommendation for personalisation of learning pathways technologies and emphasis on enabling personal control may suggest that online tutors will have a minimal role and involvement in individual learning process. The recommendations for online tutor role in enabling learning through constructive dialogue suggests otherwise.

A published dialogue between Freire and Macedo (1999, 48) has influenced this recommendation. In this dialogue Freire criticises the educationalists who claim to follow his writings and take a laissez-faire approach in learner-directed discourse. As Macedo puts it to Freire,

> *"...many educators who like your work mistakenly transform your notion of dialogue into a method, thus losing sight of the fact that the fundamental goal of dialogical teaching is to create a process of learning and knowing that invariably involves theorising about the experiences shared in the dialogue process. By overindulging in the legacy and importance of their respective voices and experiences, these educators often fail to move beyond a notion of difference structured in polarizing binarisms and uncritical appeals to the discourse of experiences... (they) refuse to link experiences to the politics of culture and critical democracy thus reducing their pedagogy to a form of middle-class narcissism." (Freire and Macedo 1999, 50)*

Freire and Macedo (1999, 49) conclude that many educators end up using dialogue as a cliché, like online discussions are often used in the contemporary online courses and claimed as democratic and constructivist means of engagement.

Freire and Macedo (1998, 49) recommend for educators to recognise that dialogue in learning is more than a mechanical process that focuses on individuals' lived experiences. This theory of online learning also recommends that if educators emphasise on mechanical participation in dialogue as they may do when making participation in online discussion compulsory, they are preventing their learners from engaging in critical reading of the dialogue (Freire and Macedo 1999, 51). Such a dialogue then does not become a process of learning and knowing. In this research the online discussions did not facilitate social construction for the participants who identified issues of limited personal control and conflicts in the online social identity constructions. Likewise, the home and overseas learners experience of language in online discussion process remained un-critiqued and unchallenged.

In line with Freire's outlook, my theory recommends the role of the tutor in online discussions is to stimulate learners *"to live a critically conscious presence in the pedagogical and historical process"* (Freire and Macedo 1999, 48). This requires

online tutors to engage individuals, who are trying to construct their learning pathways, in a critical dialogue about their learning choices. It involves tutors using their experiences and expertise to challenge learners' construction of their learning pathways in reference to their personal and professional learning goals. In a social learning online context, the role of the tutor would be to encourage participants to engage in a critical dialogue about the political and pedagogical implication of using formal online discussion spaces to facilitate different ways of knowing.

Instead of limiting discourse to pre-defined course specific topics, the tutor could shift control to the learners by supporting them to construct and negotiate new topics of similar interests and spaces for discussions. It is possible for the online tutors to use their authoritative position and create additional time for political and ideological analysis of social engagement, during the initial and ongoing socialisation processes. This recommendation can support a shift in online facilitation practices from mechanical exchanges towards social psychological construction processes. The tutors can draw on explanations and propositions of tenet 2 to deconstruct their learners' experiences during the online course and identify aspects and strategies that disempower some learners. Then they can begin to engage with, discuss and address the complex issues of power, control and emotions experienced by participants and non-participants during online discussions.

The critical interventions as proposed by Freire and Macedo (1999) would also need to involve the creation of safe and challenging online spaces where the participants feel free and open to share meanings and social realities around the subject. The aim will be not to emphasise any one way of knowing and social engagement over others, but to provide and encourage a diverse range of strategies. Tutors' role will be to acknowledge different ways of knowing and intervene to probe learners to think in different ways and find answers to their own questions. This approach may encourage some learners to engage and benefit from critical discourse. The critical role of the tutor would also be to assist the learners who feel excluded or isolated to engage in social construction, and to include them through preferred alternative forms of social engagement (including and other than formal online discussions). This inclusion of different learners through critical facilitation can enable an ongoing transfer of power

and control among the participants, rather than acknowledgment of one way of knowing over others.

Further research is recommended to explore online tutorial and facilitation strategies for successful text-reliant discourse in different subjects and for different groups of learners. The course tutors, designers and software developers need to engage in online research and practice to understand the social and power structures created within the technology-enhanced spaces and how these influence learning for different learners.

The above recommendations cannot be implemented unless time and cost issues in teaching and learning are considered. The following section suggests that if the future higher learning is to move into the constructivist paradigm and use technology to promote accessibility, flexibility and openness among learners from different contexts, there is need for a shift in the formal higher education archetype of teaching and learning.

7.9 Constructivism in a new learning space

The research findings and the emerging theory of online learning raise questions for the current higher education structures ability to enable flexibility and accessibility as purported in the e-learning rhetoric. The fixed schedules, emphasis on tutor-defined learning materials and pre-defined learning processes were restrictive for the different professional postgraduate learners in this research. The recommendations stated in the above sections suggest the need for a change in the archetype of knowledge space in formal higher education.

The tenets 1 and 3 in the theory identify the need for a shift in the scene of knowledge from what is currently presented in online pedagogy towards a more fluid, developmental and personalised curriculum. The latter would need to allow freedom and movement between formal and informal social and individual learning contexts. This notion of shift is also supported by the postmodernists who argue that if current education system remain closed, linear and bound by a traditional industrial model,

the system stakeholders will continue to suppose *"information is scarce, controlling it is power"* (Siemens 2003, 2). They will not recognise learning as a fluid process where learners can use the Internet to share, create and recreate power and control over learning.

Raschke (2003, 57) proposes that the new learning space, which purports learning can take place anywhere and anytime, needs to consider the total context of the learner and any resources or tools she [sic] may use. In this space learning is not a bi-directional exchange between a tutor and learner, but a multidimensional sharing of perspective that interacts more openly and freely with self and others' social realities. The current state represented in the research findings indicates that it may be a long way before such spaces are realised. The research calls for research and practice development that use learning strategies and technologies more efficiently to increase personal control, a sense of social presence and emotional connectedness for different learners.

However, it is naïve to presume that technology could give everyone equal control and would results in a power-equal utopian ideal in education. In most part, just as Freire (Freire and Macedo 1999) argues the reason and purpose of education is to experience these power struggles and learn from them. Thus education needs to be a challenge not a comfort zone of technology that gives control and all the answers. Yet technology does have a part to play in enhancing the educational challenge. The research findings suggest that the part it needs to play may not be as currently advocated in the VLE use to digitise and transmit all learning material and expect an online discourse. The technology role will become more important when the learners can feel greater ownership of their virtual identities and the online social spaces.

What might happen if the different learners do experience greater sense of control, have better access to IT and make use of more open and informal opportunities to share alternative social realities using technologies? Turkle's (1995) work on the way people interact and emotionally engage when using the Internet concluded that sharing social realities online might help individuals discover and understand the constructivist worldview. As the participants in an online social situation recognise that the computer screen is merely a play of surface simulations to be explored, so

they may come to see reality in the same way. Some might argue this is opposed to the stable understandings about constructs and facts that the education systems may aim for. Turkle (1995) suggests that this is in line with the constructivist understanding that

> *"...if there is no underlying meaning, or a meaning we shall never know, postmodern theorists argue that the privileged way of knowing can only be through an exploration of surfaces, ...this makes social knowledge into something that we might navigate much as we explore the Macintosh screen and its multiple layers of files and applications."*

According to Turkle (1995), recognising the constructivist way of knowing may enable individuals to suspend disbelief and recognise that the day-to-day life was no more a reality than the role-playing games or virtual identities construed in online spaces.

Thus if learners and tutors feel more in control and feel safe with their sense of identities in the online space, they may eventually recognise that silence or active participation as mere roles and representations of the social reality in the wider learning space. This understanding may open up the learners and tutors to experiment freely and take risks to construct new meaning, through individual and social interaction in the new learning spaces.

7.10 Research Contribution

This research is a theoretical and practical contribution to the presently under-conceptualised field of online learning. The engagement in the research process has unravelled different ways of knowing in online and blended courses. The contribution of the research process and its sharing through this thesis is that it provides food for thought for online academics and enthusiasts to reconsider their own interpretations of constructivism. As an online tutor, the research has been a useful opportunity to get close to the learners and reflect on how the findings and conclusions affect my future practice and research in the field.

One of the main contributions of the research is the emphasis it places on understanding the learner before assuming benefits of technology tools and learning

strategies based on suppositions and vogue. This in-depth research of learners' experiences, and their underlying personal constructs for knowledge construction during online and blended courses is among the first in the online learning field. Thus far various studies have included qualitative and quantitative analysis of learners experiences in online discussion participation, but they have done so with emphasis on online discussions as the main learning activity, disregarding other ways of knowing.

This research made every effort to consider learners' experiences from more holistic and learner-centred perspectives. It included online discussions as well as other learning activities the different learners engaged in to make meaning. The research gave a voice to the silent, invisible learners and gave them space to express their feelings and personal constructs for different learning activities. These findings build on the evidence that silent discussion participants are involved in social construction of meaning. This research contributes recommendations that support the learners who may chose to 'lurk' rather than dismissing online silence as an unwanted behaviour.

The social psychological themes surfaced in this research indicate that the popular application of Salmon's five-staged model (Salmon 2000) for online learning collaboration may not take account of the significant impact personal control and emotions can have on online discussion participation. The complexity of online social identity construction processes revealed in this research challenges the simplistic presentation of the five-stage model. The present research has contributed a new theory of online learning to the body of knowledge that highlights the deep constructs and the unconsidered issues of social identity construction in online and blended courses.

The emerging theory adds to online discourse the themes such as online social identity construction, personal control, emotions, and conflicts in the online and blended formal professional learning contexts, power discourses and inequities in online participation. The hypotheses in the emerging theory highlight how these themes can be applied and tested in future e-learning research and practice.

The in-depth research of individual learners' experiences has led to a theoretical framework that states, enforced online discussion participation can reduce personal control for social constructivist learning for different learners and may make them feel excluded. Thus another important contribution to knowledge is the challenge these findings present for the online learning practices that put faith into online discussions as the main means of social construction. The theory makes explicit that power discourses do exist in formal online communication spaces. Its contribution is the identification of social psychological and practical factors that may be addressed in future practices to enable more equitable online social learning experiences.

The research findings also showed that the power discourses in online discussions affect overseas learners. It adds to the emerging evidence and highlights the need for further study of the overseas learners knowledge and identity construction due to emphasis on participation in formalised online discourse in English. This is particularly important if the UK universities are to have a leading market edge in attracting fee-paying overseas learners from countries where English is not the first language (British Council 2005)

The research process has allowed me to extend the use of visual representations to enhance the Repertory Grid Method. The use of multi-dimensional graphical representations and metaphoric visual representations for knowledge construction space enhanced the interview process. I have developed and used these visual tools to gain a deeper understanding of how learners make meaning, and to confirm what I understood was what the learners meant. The users of the Repertory Grid Method can draw on these visual techniques to engage their interviewees and build a deeper understanding of their outlooks.

The above recommendations extend the contributions and impact this research can have on identifying and supporting learners and their different ways of knowing, in courses that use information technology. These recommendations will develop as the theory is used and tested in future online learning practices.

7.11 Summary

The research makes significant and new contributions to the emerging knowledge base for online and blended learning. Most importantly the research findings have helped to conceptualise and theorise the contemporary emphasis on online discussions as the main means for social construction, in online and blended learning. The aim, process and conclusion of this research were to understand different learners meaning making processes in the online and blended learning contexts. It surfaced and highlighted the need to put the learner before the learning design, and learning before technology. The recommendations place emphasis on understanding, acknowledging and strategizing for different ways of knowing.

The research met its objectives and successfully used the Repertory Grid Method to examine knowledge construction for twenty-nine professional postgraduate learners from online and blended courses. The analysis surfaced different and similar ways of knowing for active, moderate and silent participants but did not lead to classification of learners into these neat categories. All learners identified personal control and emotions as the main personal constructs that influenced participation in chosen and required learning activities. Personal control and emotions also surfaced as the necessary conditions for participation in online course discussions. The research identified social psychological processes and practical factors to explore why some learners felt greater control and positive emotions during online discussion as compared to others. The research surfaced power discourses in online discussions and provides recommendations to enable more equitable social engagement.

The emerging theory of online learning emphasises that all learners engage differently. It is concluded that emphasis on one way of learning, such as online discussions does not fit all learners' knowledge construction processes. The research and the theoretical tenets do not give solutions that might make all learners actively participate in online discussions. Learning is a complex, dynamic and individual phenomenon. The main research achievement is that it provides empirical evidence and a grounded theory for online educators and designers, who may become more aware of the different ways of knowing and may acknowledge these differences during online and blended learning. With this knowledge, online educators like

myself can focus on managing differences in learning and use appropriate tools and strategies to enable learner control and a sense of belonging. Rather than work towards one way of knowing, and impose compulsory participation in online discussions for all learners. Thus, the research has taken us one step further from the assumption that all learners must engage in online discussions for social construction of meaning.

The research has questioned the policy and education claims that technology-enhanced learning for professional learners is an obvious means to promote accessible and flexible ways of learning. By highlighting different ways of knowing the research has placed emphasis on the need to know the learner and her [sic] context, than to assume introduction of information technologies will by itself widen participation for professional learners.

Learners need to be understood for their constructions. Thus care should be taken when applying the research conclusions, the theoretical tenets and recommendations to other learners. If different learners are to benefit from technological developments, then there is a need for ongoing research and development into knowledge construction, online course design and online facilitation. As research opens up understanding for different ways of knowing in online contexts, learners could drive the future technology developments, rather than being driven by what technologies are available.

Appendix I

Research Questionnaire

1. What was the online (or blended) course you participated in
   .....at .....(Dept/School)
   Course dates: .....
2. What aspects of the course were online?
   .....
3. Were you required to participate in any online discussions?
   .....
4. Was this the first course that you have participated in that had an online component?
   Yes ☐
   No ☐ If no, what previous online course(s) have you completed?
   .....
5. What was your previous education?
   .....
6. Do you have easy internet access?
   .....
7. Did you feel you had adequate IT skills and experience to participate in the online course?
   Yes ☐
   No ☐
   May be ☐
   Additional comments.....
8. Were there any IT skills you had to learn during the course?
   Yes ☐ If yes, what were these skills?
   .....
   ...
   No ☐
9. Was the Virtual Learning Environment used for the course easy to understand and use?
   .....
10. Is finance an issue in learning online? If so, how?
    .....
11. Who is funding for the online/blended course?
    .....
12. Were/Are you in employment while studying for this course?
    Yes ☐ P/T F/T
    What is your employment?.....
    No ☐
13. Do you have other caring and/or family commitments that may take priority over your participation in learning?
    Yes ☐ No ☐

Appendix II

Postal Invites

3rd March 2004

Shalni Gulati (RGN, BSc, PGCE, MPhil)
PhD Student in Online Learning
City University
Department of Continuing Education
Northampton Square
London EC1V0HB
Tel: 0207 040 4077
Email: s.gulati@city.ac.uk

Dear Online Learner
The purpose of this letter to request your participation in an educational research explained here briefly.

I am currently a full-time doctorate student at City University (Department of Continuing Education), London. The main purpose of my study is to explore and understand how learners on online courses engage in learning. The study is titled: **Learning from online and blended learners**.

I have gained ethical approval to carry out this study with past or present postgraduate online and blended course learners. The methodology includes a learner-centred interview. It is hoped that the study will help understand learners' perspectives on how they may or may not currently benefit from online learning provisions. If you take part in the study, the interview will also help you discuss and uncover the various ways you learn and make sense of things.

Participation in the above study is completely voluntary and confidential. The data from the study will be used anonymously without any reference of student name, demographics or course cohort. The study is independent of your School and your course tutor(s) will not have access to any information collected during the interview.

If you take part in the study, you will also be entered into a draw to win:

1. A bottle of champagne
2. £10 M&S voucher
3. A once-only use camera

You have 1 in a 30 chance of winning these!
During the interview I will also provide any coffee/tea and snacks. The interview will take place in quiet place of your choice, and will require up-to 2-hours.
Your participation in this study will be a great contribution to the nursing and educational communities. If you are interested and would like to find out more about the study, please feel free to contact me via phone, email or by completing and posting the enclosed form. My phone contact is: 0207 040 4077; Email: s.gulati@city.ac.uk
The interviews will be carried out throughout this year (2004). I will be grateful if you could inform me of your interest in the study at your earliest, and we could then arrange an interview date, time and place most convenient for you. I am very grateful for your attention and look forward to hearing from you.

Thanking You
Shalni Gulati

Please complete the following and return in the Self Addressed Envelope provided to: Shalni Gulati, Department of Continuing Education, City University, Northampton Square, London EC1V 0HB

I am interested and may wish to take part ☐
I am not interested in the study ☐

If you are interested in the above study, please state how you would like to be contacted, including the relevant contact details:

My name is: .....
Tel no: .....Email: .....
You can contact me via post: Address: .....

Appendix III

Explanation of the Research Project

Title of the project: Learning from online and blended learners
Principal researcher: Shalni Gulati
Purpose of the study: To explore how online learners engage in learning
Inclusion criteria: Online learner at HEI on a course using online discussions
Initial contact: Thanks for your interest in this study. This sheet will help you understand what the study is about and how will you be involved.
Benefits to you: During the study interviews you will have the opportunity to discuss and uncover the various ways you learn and make sense of things in online learning. The study results will also benefit the online educators to understand how you learn, so they can develop courses to meet the different needs for a wider range of learners.

Rewards: If you take part in the study, you will also be entered into a draw to win:

4. A bottle of champagne
5. £10 M&S voucher
6. A once-only use camera

You have 1 in a 30 chance of winning these!
During the two interviews the researcher will provide coffee/tea and snacks.

The Interview Process:
The interviews will be set up in a safe and comfortable environment, most easily accessible for you. There are two phases in the study. The first phase is an interview that will give you an opportunity to talk about your online learning experiences. This will take under 2hrs. The second phase will be a shorter meeting (about 1 hour) involving an opportunity to feedback the findings to you, and discuss how you could use the information to learn more effectively in the future.

Consent: You will be explained the aim and purpose of the study and the interview. The researcher will go through the steps in the interview. You will have the opportunity to read the information sheet and consent form, and clarify any points or worries. If you agree to participate in the study, you will be asked to sign the consent form.

Confidentiality: Any information you give during the interview will be treated as confidential and stored securely on a computer locked by password, in a secure and alarmed office. There is no access to the computer drive in which the data will be stored, from any campus library or computer labs. Interview transcripts will also be stored in a locked cupboard in the secure and alarmed office. No course tutors, employers or colleagues will have access to the data. The researcher will not have access to any online discussions or your online course communication. Any data used in reporting the study findings, will be reported using a pseudonym. Final data will be reported in the final PhD thesis. The researcher will also draw from the data to write journal articles and conference/ seminar papers. Complete anonymity of the participants, their demographic details, institution and school name, and full course titles will be maintained before, during and after data collection.

All data will be stored in a safe location for up to 3 years after the completion of the study, and thereafter shredded and destroyed. All computer data, including the back-up files will be also then be deleted.

If you wish to discuss any part of this study further with the researcher, her contact details are:

Shalni Gulati
City University
Department of Continuing Education
Northampton Square
London EC1V 0HB
Tel: **0207 040 4077**
Email: s.gulati@city.ac.uk

Participation and Withdrawal: Your participation in this study is completely voluntary. You have the option to opt out during any part of the interview. You have the right to refuse to answer any questions that you may feel are too personal or intrusive. Your answers will not affect any future treatment by the University or any University staff, as all information will be kept completely confidential and will solely be used for the proposed research study.

Your access to the final data

You have the option of receiving a copy of your interview transcript and the grid collated during the part 1 interview. This can be made available to you during or before the part 2 interview. The part 2 interview will be an opportunity to debrief results and discuss implications of results for you as an online learner.

If you withdraw in the middle of the study you could still have access to the data related to yourself, and you will have an opportunity to discuss any worries will the researcher.

The University complaints clause: You can complain about the study if you don't like something about it. To complain about the study, you need to phone **0XXXXXXXX**. You can then ask to speak to the Secretary of the Ethics Committee. You will need to tell them that the name of the project is: **Learning from Online and Blended learners;** Name of the researcher is: **Shalni Gulati**.

You could also write to the Secretary. Her address is:
XXXXXXXX

Appendix IV

Informed Consent Form for Participants

Project Title: Learning from online and blended learners

I agree to take part in the above research project. I have had the project explained to me, and I have read the Explanatory Sheet, which I may keep for my records. I understand that agreeing to take part means that I am willing to:

- be interviewed by the researcher
- allow the interview to be audio taped
- complete questionnaires asking me about my past learning experiences, with and without IT, my IT skills and my employment positions (not including any names of employers or organizations)
- make myself available for a further interview to feedback and discuss results

Data Protection This information will be held and processed for the following purposes:

- PhD Research thesis
- Academic journal articles, book chapters
- Conference/ Seminar Papers

I understand that any information I provide is confidential, and that no information that could lead to the identification of any individual will be disclosed in any reports on the project, or to any other party. No identifiable personal data will be published. The identifiable data will not be shared with any other organisation.

AND I understand that I will be given a transcript of data concerning me for my approval before it is included in the write up of the research

I agree to recording and processing this information about me. I understand that this information will be used only for the purpose(s) set out in this statement and my consent is conditional on the University complying with its duties and obligations under the Data Protection Act 1998.

Withdrawal from study I understand that my participation is voluntary, that I can choose not to participate in part or all of the project, and that I can withdraw at any stage of the project without being penalised or disadvantaged in any way.

This consent form is seeking permission for the data to be used for the* Learning from online and blended learners *project only.

Name: .....

Signature: .....Date: .....

Appendix V

Elements Elicited by all Research Participants

Table 5.1 List of elements elicited by each participant

	Helen	Anne	Betty	Karan
E1	e1 Look for information for my learning (mainly online)	e1 Participated in online quizzes (formative assessment)	e1 Email Colleagues (to share docs and PPT: formal & informal happening together	e1 Read the lecture material
E2	e2 Sharing my findings with others (required discussions)	e2Creating a course portfolio	e2 Search on the internet for visual resources & flowcharts	e2 participate in class discussions
E3	e3 Action learning set (2nd workshop) in groups	e3Posting messages on discussion boards	e3 Search databases & search engines on specific subjects	e3 Complete weekly reports
E4	e4 Reading about action learning sets	e4 Reading others online messages	e4 Read WebPages, articles on or off the computer	e4 Read online discussions
E5	e5 Working with others @ work for the IT strategy	e5 Group work online (file sharing & reviewing each others work)	e5 Jot down ideas from what I have read	e5 Read during travel
E6	e6 Linking my learning to work	e6 Reading lecture notes online	e6 email for Informal discussion and to maintain contact when in placement	e6 Access & download reference material
E7	e7 thinking & preparing an online message	e7 Online debate (with tears)	e7 email tutors my essay for feedback	e7 Term exams
E8	e8 Learn from others interacting online	e8 Applying my learning to work	e8 Manage my time and knowledge online	e8 Submit course work
E9	e9 Writing a learning journal	e9 Evaluating online learning communities (dissertation)	e9 Initially used WebCT for online discussions	e9 Active participation in group study (face to face)
E10	e10 Research project to determine the market for classical ring tones	e10 Face to face element in the MSc	e10 Being part of a group	e10 Informal interaction with lecturers (during fieldtrip)
E11	e11 Meeting the requirements of the course		e11 Read other peoples' emails (re. Shared documents)	e11 Fieldwork (practical aspect of learning & not assessed)
E12	e12 Preparing a PD Plan (to define what I could use the course for myself)			12 Learning from classmates
E13	e13 Produce a good standard product/outcome for the course & work			e13 Coping with not get timely feedback from my teachers

Table 5.1 (continued) List of elements elicited by each participant

	Rob	Claire	Corie	Carl
E1	e1Download learning material & Reading list	e1Asynchronous discussions	e1 Being part of a coaching group	e1 Going online as a learner
E2	e2Carrying out internet searches	e2 Threading (learning to thread)	e2 Individual written assignments	e2 Print out & read learning material
E3	e3Searching specific academic journals	e3 Sharing experiences during group work (in class)	e3 Building a learning website	e3 Relate the reading exercise to being online
E4	e4Applyingof HACCP to small business	e4 Thinking & reflection in isolation	e4 Learning how assessment can be done online	e4 Interacting online as a student
E5	e5Complete specific written assignments	e5 Learning from my teachers' experience	e5 Mentored foundation students @ Queen Mary UoL	e5 Training workshop leaders to be online mentors
E6	e6Produce a database (food) in access (Practical IT issue)	e6 Planning about making changes @ work	e6 Some compulsory participation in online discussions	e6 Learning about organisation & design in an online environment
E7	e7Theoritical aspect of HACCP assignment (records for monitoring; +some practical)	e7 Practical learning skills on how to access things online	e7 Collaborative task (individual searches, put together & publish)	e7 Being part of a group in an action learning project
E8	e8Irregular participation in online discussions (busy @ work)	e8 Learning by experience (in developing IT skills)	e8 Work based project (related to work & course)	e8 Organising & moderating online conferences @ work
E9	e9Collaborating to identify problems using action learning sets	e9 Getting my students real access to IT	e9 Reflecting on course management as a learner	e9 Access & read personally sought sources of reading
E10	e10Accommodate learning around work (Prioritise)	e10 (Thinking about) Increasing access to handouts etc for my learners	e10 Researching & reading widely	e10 Reflection & understanding how colleagues are thinking & learning
E11	e11Understanding other people's problem	e11 Sharing experiences by emailing & calling each other	e11 Being part of an online community	e11 Formal reflection during the course
E12	e12Face-to-face discussions (for clarifications of problems etc)	e12 Setting up individual mentoring process	e12 Meeting in face to face workshops	
E13	e13Contemplating a video conferencing for distance learning		e12 Finding out other people's context	

Table 5.1 (continued) List of elements elicited by each participant

	Dan	Ernie	Fran	Joan
E1	e1 Studying online at Maryland (first online experience)	e1Download & organise assignment material	E1 Planning for my learning	E1 Participate in Online discussions/contribute
E2	e2Registring different motivational levels of other students (recognising that differences exist)	e2 Post assignments (1st drafts online)	E2 Online searches (to get an overview of the subject)	E2 Comment on others discussion postings
E3	e3 Learning how to increase student motivation to engage	e3 Dealing with teachers assumptions	E3 Reading a book (browsing)	E3 Regular online discussion board visitor (silent participant)
E4	e4 Changing the requirements for participation online (for my learners: applying)	e4 Module 3 assignment requirements	E4 Think and relate to the end outcome	E4 Surf in other outside chat rooms
E5	e5Surviving the course as an online learner(web-tycho class)	e5 Work based action learning	E5 Extend access to resources(more authors/research etc)	E5 External Reading lead by teacher
E6	e6 Designing a web-based class	e6 Preparing e books	E6 Considering learning experiences for my work	E6 Social Chat in formal learning environment
E7	e7Peer review during guest lecture (+ online interaction for this)	e7 Writing a learning journal	E7 Ongoing reflection on learning in the course	E7 External reading led by self
E8	e8Learning to use WebCT & Blackboard	e8 Interacting with people online (when looking for work)	E8 Reflective learning at work	E8 Learning the language of encouraging others to 'e-speak'
E9	e9 Looking at additional opportunities (in online teaching)	e9 Interacting with people online in the course	E9 Getting access to other courses online discussion board	E9 Application of online experiences into own face-to-face teaching
E10	e10 Knowing about other people's problems (during action learning sets)	e10 Reflecting using the exercise (book: Foster, K)	E10 Making an e-drama conference with avatars (at work)	E10 Face-to-face discussions
E11	e11 PG online learning experience at City			

Table 5.1 (continued) List of elements elicited by each participant

	Lara	Max	Nina	Ross
E1	E1 downloaded and filed all material	e1 Download learning material (pdf & html files)	e1 Attempted to logon WebCt	e1Attending course workshops
E2	E2 Access databases to retrieve information	e2 Less participation in online discussions in the 1st term	E2 Exchange information via email	e2Making sense of what is reflective learning
E3	E3 read during travel	e3 Learned at weekends	E3 Left couple of messages on discussion board	e3Writing a learning journal
E4	E4 read online course material	e4 Apply alogrithms & ecel spread sheet at my work	E4 Prepare sections for the essay in Microsoft word	Using emails in the course
E5	E5 Access URLs provided by tutor	e5 participated in discussions in the 2nd term	E5 Download articles from the internet	e5Referringto photo gallery for online discussions
E6	E6 Access directed reading	e6 Coping with the lack of material in the Law module	E6 Carry out information searches online (CINHAL, and general databases)	e6Give a presentation & learn about others projects
E7	E7 Implementing learning at work	e7 Lack of feedback on questions that were important to me (related to the law module)	E7 Write things down in my own words	Sharing & commenting on online reflections using the discussion board
E8	E8 Testing my learning through practice	e8 Attending face to face seminars during the summer term	E8 Informal discussions with colleagues (outside class, mainly discuss experiences from practice)	e8Prepared a PDPlan
E9	E9 building databases at work	e9 Groupwork in class	E9 Reading & thinking to relate to practice	e9Reading others PDPplans
E10	E10 Discourses with others @ work	e10 Individual exercises for personal learning (online)	E10 Rewriting the essay	e10Striving for a high quality product/assignment
E11		e11 (now) reading online discussions	E11 Attending class sessions (surgical modules)	e11Enjoying being with other people in the workshop
E12		e12 GIS module (less online participation by others)	E12 Care of the elderly sessions	e12Learning to write a research proposal (from my wife)
E13			E13 Writing reflective essays	

Table 5.1 (continued) List of elements elicited by each participant

	Shelly	Sam	Fiona	Lucy	Mat
E1	E1 Participated in online discussions (moderate)	E1 tried online-collab	e1Test my new ideas on Cass Learn	E1 Reading others discussions online	e1 Prepare for lectures
E2	E2 Print off & read learning material	E2 printed online notes	e2 Writing a compelling online message	E2 Contributing to online discussions	e2 Access learning material online (provided by the Univ/tutor)
E3	e3Put things down sequentially	E3 prepared questions for lectures	e3 Get feedback on how my message is received	E3 Group tasks in classrooms	e3 Access databases
E4	e4 Getting access online to learning material (ppt, links etc)	e4 anonymous postings	e4 Manage the online process	E4 Participation in online team room	e4 Review business placement projects
E5	e5 learning in isolation (in the online course)	e5 chat room discussions	e5 Give others feedback online	E5 Wide online searches using academic databases, newspapers (other than teachers links)	e5 Create new material in business placements
E6	e6 Using email for questions from tutors	e6 follow-up refs. On & offline	e6 Remind people about new thing on Cass learn	E6 Following an online timetable	e6 Offline debates with peers
E7	e7 Thought about taking my experiences to benefit my learners (in the future)	e7 email tutors re. clarification & questions	e7 Test what works & what does not work (in online interaction)	E7 Using online enquiry discussion section (to ask and see others answers)	e7 Email questions to lecturers
E8	e8 Participated in action learning sets (required activity)	e8 submit work online (by deadlines)	e8 Download & Print out learning materials	E8 Comparing submitted coursework	e8 Access newspapers (FT/New economics)
E9	e9 Attending workshops & participating in class discussions	e9 Self-directed online searching from outside sources	e9 Search on outside sources	E9 Bidding online for company case studies	e9 Draw on own work experience
E10	e10 Use the internet to search for specific information (on action learning, constructivism, learning styles etc)	e10 voluntary online self-tests (MCQ s)	e10 Writing reflections on guest lectures	E10 Hosting a video conference online	e10 Evaluate learning experiences (feedback on the lecture and online content
E11			e11 Attending Guest lectures		e11 Sharing experience and new learning with others (offline)
E12			e12 Offline discussions		
E13			E13 egg bank guest lecturer		

Table 5.1 (continued) List of elements elicited by each participant

	Ellen	Jon	Jaya	Kay
E1	E1 share presentations on WebCT for final PPT presentation	E1 Attending lectures	e1 Access internet for databases & websites	e1 Use WebCT to access & print off lecture notes
E2	E2 Share references on WebCT in a handout format	E2 Prepared for lectures using online material	e2 Email tutor at City	e2 Use reference links to go to the virtual library & web links
E3	E3 Set up meetings for face to face work & social meetings	E3 Raised questions in lectures	e3 read the online discussions	e3 Complete individual exercises online (DRNM course)
E4	E4 f2f discussions for all the work	E4 Submitted course work online	e4 email friends on the course	e4 (individual) Participate in group work to post exercise online (in class) (law & info retrieval)
E5	E5 email (tel. & text) colleague to update	E5 Discussion with students	e5 go to university library	e5 (group & individual) Post answers to exercises in the discussion area (AGI& RECS)
E6	E6 Carry out internet searches (academic databases, organisation WebPages, google)	E6 Draw on each others experiences	e6 Download & photocopy & order articles	e6 Complete MCQ s weekly (for DRNM module
E7	E7 Download, print articles & make notes on paper	E7 Complete online assignments with international learners	e7 3-day workshops with tutor	e7 Read in online discussion (in the law & DRNM module)
E8	E8 Read & pick out the bits I need (not in a particular order)	E8 Accessed online for administrative elements of the course	e8Relying on mentors & colleagues for questions in the course	e8 Participate (DRNM) in questioning using the discussion board
E9	E9 See how everything fits together & group into sections	E9 Used internet to follow up links	e9 Reading the case studies (problems increasing all the time)	e9 Prepare a 500word comment on a topic (for the integrative studies module) & post online for comments
E10	E10 Get/plan a picture of what I am going to do (for essay writing)	E10 Self searching of material and examples on the web	e10 Reading the links provides by tutor	e10 Email & push others to reply to my topic
E11	E11 Draw mind-maps to make sense for my learning (for essay writing)	E11 Accessing online academic databases and journals	e11 Search for answers on my own	e11 Reading the learning material & references
E12	E12 Learn on my own	E12 Social interaction (informal)	e12 Learning on my own (alone: no one else to discuss with)	e12 Dealing with socialising difficulties (lack of opportunities) during the course
E13	e13Visit library with others (use as motivation)		e13 managing time for study & work	
E14	e14 Have reflective discussions with colleagues (f2f & informal)		e14 Think & critically analyse for essays	
E15	e15 Participate in discussions in class (formal) (Overall silent participation)		e15 Dealing with computer malfunction	
E16	e16 Link theory to practice (in placements)		e16 Emailed assignments to tutor for feedback	

Table 5.1 (continued) List of elements elicited by each participant

	Cassie	Carmel	Jose'	Jane
E1	E1 learning in a quiet environment (reading)	E1 Difficult access to the internet		E1 I shared research & final presentations with others on WebCT
E2	E2 Print assessments (fill by hand & then do them on the computer (& print learning material)	E2 responding to the boundaries set by the organisation	E2 Read during breaks	E2 Contact colleagues via email, text, & telephone (for study & social needs)
E3	E3 I link theory with practical situations	E3 Doing clinical placements (meeting the requirements set by the CPF)	E3 Attend lectures in class (large group)	E3 Informal sharing of resources & information offline
E4	E4 Doing the online quizzes	E4 Access & print learning materials	E4 discuss in MGI group session	E4 Access online databases & journals
E5	E5 reading with a focus on assessments	E5Reading learning materials to link theory & practice (reading research)	E5 Check links online and read articles	E5 Read selected sections from books
E6	E6 Used online discussion board only once	E6 Applying my learning to improve practice	E6 Complete activities and reading before lectures	E6 Picking main points for my reading
E7	E7 rarely log on to online discussions to read only	E7 Learning from other (qualified staff) people's practice (learn from others good and bad practice)	E7 Reading other people's discussions online	E7 Completely familiarise myself with the points I am making, for myself
E8	E8 Attending the workshops for how to do reflective practice	E8 Set up a study group with others on the course (informal f2f) (discussing experiences of placements)	E8 Learning from other (distance) students work experiences	E8 link relevant points for my essay
E9	E9 Attending workshops (discussion on what I have learned)	E9 Print and read people's messages (very occasionally)	E9 Online group work for the Java course	E9 Prepare presentations for PEBL (using lesser resources)
E10	E10 Accommodate learning around work	E10 Posted 2-3 messages online on WebCT discussion board	E10 Time management in class discussion	E10 Emailing tutors for feedback
E11	E11 (added in interview 2) Meeting the course deadline.. This is poor time management	E11attending workshops with others on the course	E11 Complete quizzes online (compulsory in DRNM)	E11 Practice based assessment
E12		E12 Email my friends to share the stuff on the course	E12 Complete essays by certain dates	E12 Exploring interests in practice placements & looking for gaps in knowledge
E13		E13 Writing assignments / essays	E13 Sit exams for the course	E13 Having academic support from colleagues
E14		E14 Doing online quizzes	E14 Talk with my classmates	E14 Attending a good lecture (enthusiastic, knowledgeable lecture)
E15				E15 Attending lectures with rigid, narrow, information source

Table 5.1 (continued) List of elements elicited by each participant

	Shelly	Sam	Fiona	Lucy	Mat
E1	E1 Participated in online discussions (moderate)	E1 tried online-collab	e1Test my new ideas on Cass Learn	E1 Reading others discussions online	e1 Prepare for lectures
E2	E2 Print off & read learning material	E2 printed online notes	e2 Writing a compelling online message	E2 Contributing to online discussions	e2 Access learning material online (provided by the Univ/tutor)
E3	e3Put things down sequentially	E3 prepared questions for lectures	e3 Get feedback on how my message is received	E3 Group tasks in classrooms	e3 Access databases
E4	e4 Getting access online to learning material (ppt, links etc)	e4 anonymous postings	e4 Manage the online process	E4 Participation in online team room	e4 Review business placement projects
E5	e5 learning in isolation (in the online course)	e5 chat room discussions	e5 Give others feedback online	E5 Wide online searches using academic databases, newspapers (other than teachers links)	e5 Create new material in business placements
E6	e6 Using email for questions from tutors	e6 follow-up refs. On & offline	e6 Remind people about new thing on Cass learn	E6 Following an online timetable	e6 Offline debates with peers
E7	e7 Thought about taking my experiences to benefit my learners (in the future)	e7 email tutors re. clarification & questions	e7 Test what works & what does not work (in online interaction)	E7 Using online enquiry discussion section (to ask and see others answers)	e7 Email questions to lecturers
E8	e8 Participated in action learning sets (required activity)	e8 submit work online (by deadlines)	e8 Download & Print out learning materials	E8 Comparing submitted coursework	e8 Access newspapers (FT/New economics)
E9	e9 Attending workshops & participating in class discussions	e9 Self-directed online searching from outside sources	e9 Search on outside sources	E9 Bidding online for company case studies	e9 Draw on own work experience
E10	e10 Use the internet to search for specific information (on action learning, constructivism, learning styles etc)	e10 voluntary online self-tests (MCQ s)	e10 Writing reflections on guest lectures	E10 Hosting a video conference online	e10 Evaluate learning experiences (feedback on the lecture and online content
E11			e11 Attending Guest lectures		e11 Sharing experience and new learning with others (offline)
E12			e12 Offline discussions		
E13			E13 egg bank guest lecturer		

Table 5.1 (continued) List of elements elicited by each participant

	Ellen	Jon	Jaya	Kay
E1	E1 share presentations on WebCT for final PPT presentation	E1 Attending lectures	e1 Access internet for databases & websites	e1 Use WebCT to access & print off lecture notes
E2	E2 Share references on WebCT in a handout format	E2 Prepared for lectures using online material	e2 Email tutor at City	e2 Use reference links to go to the virtual library & web links
E3	E3 Set up meetings for face to face work & social meetings	E3 Raised questions in lectures	e3 read the online discussions	e3 Complete individual exercises online (DRNM course)
E4	E4 f2f discussions for all the work	E4 Submitted course work online	e4 email friends on the course	e4 (individual) Participate in group work to post exercise online (in class) (law & info retrieval)
E5	E5 email (tel. & text) colleague to update	E5 Discussion with students	e5 go to university library	e5 (group & individual) Post answers to exercises in the discussion area (AGI& RECS)
E6	E6 Carry out internet searches (academic databases, organisation WebPages, google)	E6 Draw on each others experiences	e6 Download & photocopy & order articles	e6 Complete MCQ s weekly (for DRNM module
E7	E7 Download, print articles & make notes on paper	E7 Complete online assignments with international learners	e7 3-day workshops with tutor	e7 Read in online discussion (in the law & DRNM module)
E8	E8 Read & pick out the bits I need (not in a particular order)	E8 Accessed online for administrative elements of the course	e8Relying on mentors & colleagues for questions in the course	e8 Participate (DRNM) in questioning using the discussion board
E9	E9 See how everything fits together & group into sections	E9 Used internet to follow up links	e9 Reading the case studies (problems increasing all the time)	e9 Prepare a 500word comment on a topic (for the integrative studies module) & post online for comments
E10	E10 Get/plan a picture of what I am going to do (for essay writing)	E10 Self searching of material and examples on the web	e10 Reading the links provides by tutor	e10 Email & push others to reply to my topic
E11	E11 Draw mind-maps to make sense for my learning (for essay writing)	E11 Accessing online academic databases and journals	e11 Search for answers on my own	e11 Reading the learning material & references
E12	E12 Learn on my own	E12 Social interaction (informal)	e12 Learning on my own (alone: no one else to discuss with)	e12 Dealing with socialising difficulties (lack of opportunities) during the course
E13	e13Visit library with others (use as motivation)		e13 managing time for study & work	
E14	e14 Have reflective discussions with colleagues (f2f & informal)		e14 Think & critically analyse for essays	
E15	e15 Participate in discussions in class (formal) (Overall silent participation)		e15 Dealing with computer malfunction	
E16	e16 Link theory to practice (in placements)		e16 Emailed assignments to tutor for feedback	

Table 5.1 (continued) List of elements elicited by each participant

	Cassie	Carmel	Jose'	Jane
E1	E1 learning in a quiet environment (reading)	E1 Difficult access to the internet		E1 I shared research & final presentations with others on WebCT
E2	E2 Print assessments (fill by hand & then do them on the computer (& print learning material)	E2 responding to the boundaries set by the organisation	E2 Read during breaks	E2 Contact colleagues via email, text, & telephone (for study & social needs)
E3	E3 I link theory with practical situations	E3 Doing clinical placements (meeting the requirements set by the CPF)	E3 Attend lectures in class (large group)	E3 Informal sharing of resources & information offline
E4	E4 Doing the online quizzes	E4 Access & print learning materials	E4 discuss in MGI group session	E4 Access online databases & journals
E5	E5 reading with a focus on assessments	E5Reading learning materials to link theory & practice (reading research)	E5 Check links online and read articles	E5 Read selected sections from books
E6	E6 Used online discussion board only once	E6 Applying my learning to improve practice	E6 Complete activities and reading before lectures	E6 Picking main points for my reading
E7	E7 rarely log on to online discussions to read only	E7 Learning from other (qualified staff) people's practice (learn from others good and bad practice)	E7 Reading other people's discussions online	E7 Completely familiarise myself with the points I am making, for myself
E8	E8 Attending the workshops for how to do reflective practice	E8 Set up a study group with others on the course (informal f2f) (discussing experiences of placements)	E8 Learning from other (distance) students work experiences	E8 link relevant points for my essay
E9	E9 Attending workshops (discussion on what I have learned)	E9 Print and read people's messages (very occasionally)	E9 Online group work for the Java course	E9 Prepare presentations for PEBL (using lesser resources)
E10	E10 Accommodate learning around work	E10 Posted 2-3 messages online on WebCT discussion board	E10 Time management in class discussion	E10 Emailing tutors for feedback
E11	E11 (added in interview 2) Meeting the course deadline.. This is poor time management	E11attending workshops with others on the course	E11 Complete quizzes online (compulsory in DRNM)	E11 Practice based assessment
E12		E12 Email my friends to share the stuff on the course	E12 Complete essays by certain dates	E12 Exploring interests in practice placements & looking for gaps in knowledge
E13		E13 Writing assignments / essays	E13 Sit exams for the course	E13 Having academic support from colleagues
E14		E14 Doing online quizzes	E14 Talk with my classmates	E14 Attending a good lecture (enthusiastic, knowledgeable lecture)
E15				E15 Attending lectures with rigid, narrow, information source

Appendix VI

Personal Constructs elicited by all participants

Table 5.2 Bipolar personal constructs

Anne (active)	
PC1a Forms of assessment	PC1b Feeling of being in an online community
PC2a Individual learning	PC2b Social learning
PC3a Getting ongoing feedback	PC3b Giving feedback
PC4a Less active (but more reflective)	PC4b More active
PC5a Make sense to myself	PC5b Make sense to others
PC6a Doesn't rely on building relationships with other people	PC6b Involves building relationship with others
PC7a More freedom	PC7b Less freedom
PC8a Feels more comfortable	PC8b Has the potential of feeling less comfortable
PC9a Driven by my work	PC9b Driven by personal interest
PC10a Exhausting (draining -ve)	PC10b Hard work & tiring (+ve)
PC11a Positively affected my comfort zone	PC11b Negative attack on my comfort zone
PC12a My personal development	PC12b Building social relationships
PC13a Learning that I can apply to work	PC13b Learning about a new way of learning
PC14a In my own time	PC14b Time constrained & more structured
PC15a Represents my learning as a whole	PC15b Represents learning in parts
PC16a Self directed & self-led learning	PC16b Tutor led learning
Betty (active)	
PC1a Me acquiring the knowledge	PC1b Sharing knowledge that I have found
PC2a Here I am finding the information	PC2b Here I am processing the information
PC3a Broader knowledge	PC3b More focused knowledge
PC4a I am open to look at learning resources I find	PC4b I am pin-pointing what I want to know and write
PC5a This is more organic and fluid process	PC5b Not as fluid but limited
PC6a Here I learn from different views	PC6b Here I build my point of view of learning
PC7a This is working as a group for learning	PC7b This is solitary learning
PC8a Here I am learning from other people's perspective	PC8b Here it is purely my perspective
PC9a Other people are influencing my thought process	PC9b This is my independent thought process
PC10a This helps me question what I have learned	PC10b Here I am not questioning myself
PC11a Here my ideas are dependent/influenced by others	PC11b Here my ideas are independent of others
PC12a Here I have responsibility to others	PC12b Here responsibility is not an issue
PC13a This facilitated my learning	PC13b This did not facilitate my learning
PC14a Helps to create relationships with others	PC14b Does not facilitate relationships creation
PC15a I choose when the facilitators see the work	PC15b Observed by tutor/facilitators all the time
PC16a I trust this for growing my ideas	PC16b I don't trust this for growing my ideas
Cassie (silent)	
PC1a More absorbing	PC1b Not so absorbing
PC2a This helps link theory to practice	PC2b This is not linked to practice
PC3a Learning resources are complete	PC3b Learning resources are not complete
PC4a This is systematic	PC4b This is frustrating and incomplete
PC5a Time efficient (constructive use of time)	PC5b Time consuming (not so constructive)
PC6b More focused	PC6a More ambiguous
PC7b This flows	PC7a This is disjointed

PC8b This engages and interests me	PC8a This occasionally interests me
PC9a I have to do these (required)	PC9b I want to do this (I choose to do this)
PC10b This is satisfying for my learning	PC10a This is not satisfying for my learning
PC11a Others set the pace	PC11b I set the pace
PC12a I have limited control	PC12b I control the flow
PC13b Applicable to me	PC13a Not applicable to me
PC14a This is positive use of my time	PC14b This is a time waster
PC15a This confirms my learning	PC15b This has no relevance to my learning
PC16b Feels more integrated (for a discussion)	PC16a Feels disjointed (for a discussion)
PC17a These value my time	PC17b These waste my time (prolonged learning is
de-(instantaneous learning drives me)	motivating)

Carmel (silent)

PC1b This is restrictive but others can help me adapt	PC1a This is restrictive but I can adapt to it myself
PC2a I could have a choice with this	PC2a I have no choice with this
PC3b I expected that	PC3a This was a shock
PC4a I feel forced to do this	PC4b I don't feel forced
PC5a I have no choice but to meet the requirements	PC5b I can choose to do this in my own time
PC6a This is not good for my memory (stays in short term)	PC6b This is good for my memory (stays in long term)
PC7a This is not allowing me to translate	PC7b This is allowing me time to translate learning in
learning in my language	my language
PC8a This is surface learning	PC8b This is deeper learning
PC9a This is not learning based on my experience	PC9b This is learning based on my experience
PC10a Using others as models for my learning	PC10b Using my own understanding for my learning
(in practice)	(in practice)
PC11b Other people are starting this	PC11a I am starting/leading this
PC12b Others influence is less important	PC12a My influence in learning is important
PC13b One way learning	PC13a Interactive learning
PC14a Online learning	PC14b F2f learning
PC15a This is less personal	PC15b This is more personal
PC16a Learning with others is harder here	PC16b Learning with others is easier here
PC17a This is less realistic for practice	PC17b This is more realistic for practice
PC18b I gain less from this	PC18a I gain more from this
PC19b I am less confident with this	PC19a I am confident in doing this

Claire (moderate)

PC1a Talking to others	PC1b A mechanical thing
PC2a More informal	PC2b Formal (formality of language)
PC3a Written word is a representation of self	PC3b More than a said word represents you
PC4a Feels less free	PC4b Feels more free
PC5a Learning from others & my own experiences	PC5b Using my learning experience for my students
PC6a Feeling of belonging for myself	PC6b Creating a feeling of belonging for others
PC7a Abstract/ theoretical learning process	PC7b Practical results
PC8a Formal learning	PC8b Informal learning
PC9a What is intended to be learned	PC9b What is actually learned
PC10a Practical results of (e)learning & work	PC10b Reflection
PC11a Related to specific needs & requests	PC11b Goes on all the time
PC12a Considers the wider world	PC12b Considers me

Corrie (moderate)

PC1a I felt in control	PC1b I felt frustrated
PC2a Achievement is my own responsibility	PC2b Achievement is dependent on others
PC3a Theoretical learning	PC3b Technical learning
PC4a Felt comfortable	PC4b Felt more as a challenge
PC5a Interacting with people	PC5b Interacting with technology
PC6a Made me question my actions with other people	PC6b Made me question my interactions with technology
PC7a Helped me see learners' perspective	PC7b Helped me see my role as a teacher
PC8a Me as myself	PC8b Interacting with others'
PC9a Practical projects	PC9b Reflective process

PC10a Directly related to my job	PC10b Can be applied to my job
PC11a Challenging	PC11b Not so challenging
PC12a Relevant to me	PC12b Not so relevant
PC13a How good can I be at this	PC13b Not enough to get my teeth into
PC14a Lighthearted	PC14b More heavy (weighty); More substance

Carl (active)

PC1a My learning style	PC1b My learning process (to get access to a learning experience)
PC2a Feels more comfortable	PC2b Not perfect for me
PC3a More aesthetic environment for my learning	PC3b A functional environment
PC4a Multi-dimensional & active learning	PC4b Functional & uni-dimensional (structured)
PC5a Putting my learning into practice (active learning)	PC5b Feel constrained in my learning experience (slow & not a adventurous)
PC6a Allows me to take chances & risks	PC6b Not allowed to take chances
PC7a Freedom to define my own parameters	PC7b Parameters & frameworks are restricted & very limiting
PC8a Feels more liberating	PC8b Makes me feel frustrated
PC9a Helps to bring my values & beliefs to impact upon	PC9b Less latitude (operating within restricted beliefs & retaining organisational status quo)
PC10a Participative & collaborative	PC10b My personal learning (self contained)
PC11a Satisfying	PC11b Not so satisfying
PC12a Feels engagement has been less satisfying	PC12b Feel successfully engaged
PC13a I am open to challenge	PC13b Others are not always open to challenge
PC14a I feel prepared with this form of learning	PC14b I need more preparation in this form of learning
PC15a Internal dialogue is easy	PC15b Dialogue with others is limiting
PC16a I am conscious of others & own development	PC16b I define & draw conclusion around my experiences & development
PC17a More authentic yet rich experience	PC17b Artificial yet a rich experience

Dan (moderate)

PC1a Me being a lecturer	PC1b Me being a learner
PC2a I am concerned about others motivation	PC2b I am concerned about my motivation
PC3a Gaining knowledge & skills	PC3b Applying knowledge & skills
PC4a Interaction with software	PC4b Human interaction
PC5a Positive for me	PC5b Positive with other people
PC6a More exciting	PC6b Less exciting
PC7a Dealing with other people & organisation	PC7b Me dealing with me
PC8a May be constraints	PC8b No constraints
PC9a There are controls I have to meet	PC9b No issue of control over me
PC10a New opportunities	PC10b Old opportunities
PC11a Planned & self motivated	PC11b Not so planned
PC12a I prioritised my time with this	PC12b I am not yet prioritising this
PC13a Direct relevance to online tutoring	PC13b Indirect relevance to online tutoring

Ellen (silent)

PC1a Social Learning	PC1b Academic Learning
PC2a Online	PC2b Face to face
PC3a Convenient	PC3b Not always convenient
PC4b Sparks ideas for my learning	PC4a Doesn't sparks ideas
PC5bMore swapping of ideas on learning resources	PC5a Isolated representation of a learning resource
PC6a This doesn't stay in my memory	PC6b This stays in my memory
PC7a Sharing my learning with others	PC7b Learning on my own
PC8b This is my actual learning	PC8a These are triggers for my learning
PC9b I can digress during this (less focused)	PC9a More focused
PC10b Variety is less engaging	PC10a Variety is more engaging
PC11a Absorbing for my learning	PC11b Gathering for my learning
PC12a This is application for my learning	PC12b This is just administration for my learning
PC13a Linear process of my learning	PC13b Circular process of my learning
PC14a I spend more time on this	PC14b I spend less time on this

PC15b No time pressure
PC16a Theoretical learning
PC17a Theory drives practice here
PC18a I am in control here
PC19a Link to practice is obvious here

PC15a Time pressure motivates me
PC16b Helps link theory to practice
PC17b Practice drives theory here
PC18b I am not in control here
PC19b Link to practice is not obvious here

Ernie (silent)

PC1a Higher comfort zone
PC2a Don't get much out of this
PC3a Less focused
PC4a A lack of reference point
PC5a Work
PC6a Anchored by work contract
PC7a More enjoyable
PC8a Allows a feeling of control
PC9a Comfort & creativity is immediate
PC10a Real life rigour
PC11a Dynamic
PC12a Lead me to external worlds of learning

PC1b Moves me out of my comfort zone
PC2b Get more out of this
PC3b More focused
PC4b A reference point is present
PC5b Academic
PC6b Anchored by academics
PC7b Sometimes enjoyable
PC8b Control lies in academic rigour
PC9b Comfort& creativity not so immediate
PC10b Academic Rigour
PC11b Passive
PC12b Learning world limited to class

Fiona (active)

PC1a I learn by testing my idea
PC2a Quality of my own input in discussion (online) drives me
PC3a I take initiative
PC4a Getting & sorting information
PC5a Environment is not an issue
PC6a Ongoing learning activity in my life
PC7a Individual learning
PC8a Receive information actively
PC9a I have to think
PC10a Always results in learning
PC11a Made an emotional connection
PC12a Made me feel more confident
PC13a Made me feel valued & respected

PC1b I learn from feedback
PC2b Feedback motivates me

PC3b Reinforce to keep others interested
PC4b Interacting with people
PC5b Environment is an issue
PC6b Learning for a particular objective
PC7b Interactive learning
PC8b Receive information passively
PC9b I don't have to think
PC10b Sometimes results in learning
PC11b Constructed a barrier (between CEO &student)
PC12b Did not feel confident
PC13b Respect & Value are superficial

Fran (silent)

PC1a Shapes my learning (continuously)
PC2a Crucial to have
PC3a Helps contextualise to my own domain
PC4a Motivation for learning
PC5a Helps find relevance in my world
PC6a Helps define the purpose
PC7a Is enjoyable
PC8a Have some control
PC9a 'Why' and 'how' of learning
PC10a Reflect and then relate

PC1b Helps move through the learning process
PC2b Good to have
PC3b Helps apply learning to other domains
PC4b Resources for learning
PC5b Tools for understanding
PC6b Helps meet the purpose
PC7b May be enjoyable (depending on context)
PC8b Have total control
PC9b 'How' and 'Why' of learning
PC10b Do and then reflect

Helen (moderate)

PC1a Interacting with other people
PC2a Not so natural to me
PC3a Opens up possibilities of being wrong
PC4a Learn thru other people's experiences
PC5a Related to my work
PC6a Extending my skills (for work & career)
PC7a Gives me motivation & interest for work

PC8a Voluntary activity
PC9a This is not just me:

PC1b Working on my own
PC2b My natural state
PC3b Helps me know things
PC4b Learn thru 'inhaling' reading material
PC5b Not applicable to work
PC6b This is just for intellectual interest
PC7b Helping to work thru particular incidences (in smaller time scales)
PC8b Jumping through the hoops
PC9b This is just me- I can meet the

so I am not in control in what I get out of it
PC10a My goal is formed by the academic requirements
PC11a Finished pieces of my work

PC12a Driven by me
PC13a I will continue to do this throughout my career & life
PC14a This is my learning process
PC15a Gives space to consider other peoples opinions & comments

requirements
PC10b It helps me learn about other people & their goals
PC11b Process of my learning- defines level of potential I will put in
PC12b This is an obligation
PC13b I am doing this for the course

PC14b This is the process for a particular job
PC15b Gives space for my own learning

Jane (active)

PC1a This was more useful
PC2a This opportunity was reliable for my learning
PC3b This is 'solo' work
PC4b This helps bounce ideas in my own head
PC5a I trust this more
PC6a These are more specific ideas
PC7a Planned action of my learning
PC8a I learn more
PC9a I am interested in this
P10b This is the result of my ideas & research
PC11a Analysis
PC12a I select the relevant bits from other people's thoughts
PC13a This is brilliant way of learning for me
PC14a This is assessed
PC15a This drives my learning
PC16a Feedback is generic
PC17a Facilitates my learning
PC18a I respect other in these experiences
PC19a I am more open to learning here

PC1b Not useful
PC2b This was not reliable for my learning
PC3a This is learning with other people
PC4b This helps bounce ideas with others
PC5b I trust this less
PC6b These are broad based ideas
PC7b Spontaneous action for my learning
PC8b I learn lesser here
PC9b I am not interested in this
P10a This forms the backbone of my ideas
PC11b Synthesis
PC12b I select the relevant bits from my own thoughts

PC13b This is not brilliant for learning for me
PC14b This is not assessed
PC15b This doesn't drive my learning
PC16b Feedback is more detailed
PC17b This does not facilitate my learning
PC18b I do not respect others in this experience
PC19b I am less open to learning here

Jaya (silent)

PC1a I am getting information here
PC2a This gives me text for my learning
PC3a Linear learning (with people)
PC4a Sometimes boring
PC5a Answer is delayed
PC6a I have no opportunity to share my learning with others
PC7a More important for my learning
PC8a I can rely on this for my learning
PC9a This is under my control
PC10a I rely on others
PC11a Unsupportive & discouraging fro my learning
PC12a Practice-oriented learning
PC13a More applicable & Satisfactory
PC14a no disturbance & interruption in my learning
PC15a This is what I want
PC16a I felt isolated sometimes
PC17a This is good management of my time
PC18a Administrative process (of managing time) for my learning

PC1b I am sending information here
PC2b This gives me a variety of formats for learning
PC3b Interactive learning (with the computer)
PC4b This keeps me awake & it is not boring
PC5b Answer is more instant
PC6b I can share learning with others
PC7b less important for my learning
PC8b I cant rely on this for my learning
PC9b Control is dependent on others
PC10b I rely in my time
PC11b Very supportive for my learning
PC12b Theory learning
PC13b Less applicable
PC14b This can distract me
PC15b This is less focused
PC16b I did not feel isolated
PC17b This is poor management of my time
PC18b Getting an in-depth picture of what I am learning

Joan (active)

PC1a Mutual Exchange
PC2a More learning (through sharing)
PC3a More outcome orientated
PC4a Pleasurable

PC1b Silent Participation
PC2b Learn less on my own
PC3b Feels less outcome orientated
PC4b Feels a bit painful

PC5a Needs shorter time (for effective learning)
PC6a Informal learning (preferred way)
PC7a Applicable to work
PC8a Encourages reflection
PC9a Time constrained
PC10a More natural to me
PC11a Satisfactory
PC12a Work-based

PC5b Needs longer time for effective learning
PC6b Academic Structured formal
PC7b Not so applicable to work
PC8b Immediate response
PC9b Immediate feedback
PC10b Not so natural to me
PC11a Less satisfactory
PC12b Social

Jon (active)

PC1a Interacting with people
PC2a Less control (over speed and delivery)
PC3a Issue is own focus and comprehension
PC4a Not so flexible
PC5a Seeded by the lecturer
PC6a Discussion tailed off after a while
PC7a Voluntary
PC8a Building a community
PC9a More my style in a learning context at HEI
PC10a Reliance on others
PC11a Issues of fairness
PC12a Individually driven activities

PC1b Interacting with computers
PC2b More control
PC3b Class size is an Issue
PC4b Flexible (able to adapt reading to my own needs)
PC5b Spontaneous discussion
PC6b Discussion ongoing
PC7b Compulsory
PC8b Multi-modal representation of my learning
PC9b More my style in real life
PC10b Reliance on self
PC11b Issues of own/personal motivation
PC12b Helped to build relationships

Jose' (silent)

PC1a Learned more
PC2a May be too much pressure in this
PC3b Not enough time to learn (time is an issue)
PC4a Mostly enjoyable
PC5a Learning on my own
PC6a Helps answer questions
PC7a Do things on my own and then share with others
PC8b I need to make an effort
PC9a Compulsory
PC10a Reflects the effort I put in
PC11a Has more value for my learning
PC12a Is practice based
PC13a I have product of my learning
PC14a Helps me build on my knowledge

PC1b Did not always learn
PC2b Not so much pressure in this
PC3a Time is not an issue here
PC4b Not enjoyable
PC5b Learning with others help
PC6b Helps raise questions
PC7b Learn from what others are sharing
PC8a I don't need to make an effort
PC9b Voluntary
PC10b Does not reflects the effort I put in
PC11b Has less value for my learning
PC12b Is not practice based
PC13b I don't have product of my learning
PC14b Helps me confirm what I have learned

Karan (silent)

PC1a Online
PC2a Self learning
PC3a Pre-defined by lecturers
PC4a Learn lesser
PC5a More theory
PC6a Boring
PC7a Views from one lecturer
PC8a More time consuming
PC9a First in my priority
PC10a More useful for my learning skills & future career
PC11a More motivating
PC12a Following course routine
PC13a Not so updated
PC14a Theory work (routine)

PC1b Face-to-face
PC2b Group discussions
PC3b Led by me
PC4b Learn more
PC5b More practical
PC6b More engaging
PC7bViews from different aspects
PC8b More focused
PC9b Last in my priority
PC10b Not useful for me
PC11b Not so motivating
PC12b Learning to apply to the real world
PC13b More updated
PC14b More understanding & practical

Kay (silent)

PC1a Offline
PC2a Intense
PC3a Time constraint

PC1b Interactive learning
PC2b Relaxed
PC3b More flexible

PC4a Involved others	PC4b A very personal experience
PC5a More pleasant experience	PC5b Scary experience
PC6a Relevance not always clear	PC6b More relevant to my learning
PC7a I get more excited by this	PC7b Not so exciting
PC8a Voluntary	PC8b Obligatory
PC9a Chosen by me	PC9b Assessed by teacher (required)
PC10a Felt less inhibited	PC10b Felt judged by my contemporaries
PC11a Felt more confident with the subject	PC11b Felt less familiar with the subject
PC12a Something that sparks interest in me	PC12b Doesn't spark interest in me
PC13a Feeling isolated (in a bubble)	PC13b Feeling happy on my own
PC14a Felt more in control with this	PC14b Felt control was taken away from me
PC15a Felt more close to me	PC15b Felt more remote

Lara (silent)

PC1a Assimilating information	PC1b Understanding concepts
PC2a Interactive learning	PC2b Not Interactive
PC3a Practice orientated	PC3b Not practice orientated
PC4a Energy demanding	PC4b Less energetic
PC5a Time consuming	PC5b Easier to accommodate time around this activity
PC6a More rigorous	PC6b More familiar
PC7a More aware of learning	PC7b More Intuitive
PC8a Learning between me and the computer	PC8b Discursive learning (with others involved)
PC9a Pre-structured learning	PC9b Building on my learning
PC10a Pre-defined learning path	PC10b I make the decisions
PC11a Practical	PC11b Conceptual
PC12a Testing what I have learned	PC12b Enable deeper learning
PC13a Involves other people	PC13b Self-learning
PC14a More enriching	PC14b Less enriching
PC15a Acquiring information	PC15b Sharing Information
PC16a Less Engaging	PC16b More engaging
PC17a Less Intriguing	PC17b More Intriguing
PC18a Less organic	PC18b More organic

Lucy (active)

PC1a Draws attention	PC1a Not vivid
PC2a Not so memorable	PC2b Memorable
PC3a Text based	PC3b Video/audio learning
PC4a Less interactive	PC4b More interactive
PC5a I chose how and what I can do	PC5b Do what others say
PC6a more my control	PC6b Less control
PC7a Focused on results	PC7b Focused on the process
PC8a Less engaging	PC8b More engaging
PC9a Involves learning	PC9b Helps to motivate me
PC10a active	PC10b Passive
PC11a involves others	PC11b Self initiating
PC12a Feedback from others	PC12b Self reflection for learning

Max (silent)

PC1a Less positive experience	PC1b More positive experience
PC2aLess my choice	PC2bMore my choice
PC3aReliance on the internet connection	PC3b flexibility without the internet
PC4a flexibility	PC4b Inflexibility
PC5aInfluenced by my job	PC5b Not influenced by my job
PC6a Negative source of motivation	PC6b Positive source of motivation
PC7a Not really for me	PC7b I feel this is for me
PC8a Not applicable to my real work	PC8b Applicable to my real work
PC9a face to face	PC9b Online experience
PC10a Lack of teacher motivation in the subject	PC10b Teacher my be intending for peer learning
PC11a Sometimes practical	PC11b More practical
PC12a Less control in learning process	PC12b More control over my process

PC13a Learning more about what I have learned (in exercises)	PC13b Reflecting about the exercise
PC14a Condensed learning	PC14b Spread my learning
PC15a Learned lesser	PC15b Helps learn more
PC16a More entertaining for my learning	PC16b Less entertaining for my learning
Mat (silent)	
PC1a More relevant to the course	PC1b Less relevant
PC2a Saves time	PC2b May waste time
PC3a Knowledge Creating	PC3b Debating during knowledge development process
PC4a Task orientated and controlled	PC4b Group issues & less control
PC5a More focused	PC5b Less focused
PC6a Get more knowledge depth (at all times)	PC6b Get some depth (on some occassions only)
PC7a Learn for myself	PC7b Share my learning with others
PC8a Collecting experience for learning	PC8b Using experience for learning
PC9a Helps answers questions	PC9b Provokes and raises questions
PC10a Helps identify what I want to learn	PC10b Helps reflect on what I have learned
PC11a Helps to manage learning more affectively	PC11b Make learning management more difficult
Nina (silent)	
PC1a This is me communicating	PC1b This is me trying something new
PC2a This helped expand my knowledge	PC2b This did not expand my knowledge base
PC3a Two way communication	PC3b One way communication
PC4aThis is more flexible	PC4bThis is less flexible
PC5a Gathering information for my learning	PC5b Processing information and making sense of it
PC6a Structured learning	PC6b Unstructured learning
PC7a Planned	PC7b Spontaneous
PC8a This is a conscious effort to learn	PC8b This is not a conscious effort to learn
PC9a Getting the basis (this comes first)	PC9b Relating information & discussion to real life (this comes second)
PC10a I come away with facts, theory and beginnings of my learning	PC10b I come away with a sense and feeling of what I have learned
PC11a This is about developing new ideas	PC11b This is about developing a style of learning
PC12aThis is my usual style of learning	PC12bThis is a new addition to my learning style
PC13a Here I am thinking back & relating to practice practice	PC13b Here I am not thinking back & relating to
PC14a More absorbing & interesting	PC14b Dull & repetitive
PC15a Teachers are more open to my attitudes	PC15b Teachers assume my attitudes
PC16a This is motivating & engaging	PC16b This is de-motivating
Rob (moderate)	
PC1a Formulating what I am looking for	PC1b Extract points relevant to my enquiry
PC2a Intuitive narrowing of my search field	PC2b Developing mind maps to see relationships (in space-visual)
PC3a Theoretical reading learning	PC3b Visual Learning
PC4aCore of my learning	PC4b A means to an end
PC5aLearning & applying specific ideas	PC5bPart of the input of my learning
PC6a Processes of my learning	PC6b The ultimate output of my learning
PC7a Fairly important to my learning	PC7b Central to my learning
PC8a Fundamental to my learning & work	PC8b Secondary but important
PC9a Priority emerges from my work	PC9b Priority emerges from others' suggestions or discussion
PC10a Helps understand other people's problems	PC10b Helps me reflect on what I am thinking & what I understand
PC11a Motivation is easier	PC11b Maintaining motivation is harder
PC12a Engagement is lost as time lapses	PC12b More engaging for my work & learning
PC13a Forms a large part of my learning	PC13b Is sporadic for my learning

Ross (moderate)

PC1a I could relate to this from my previous experiences	PC1b I couldn't relate to this (when I started the course)
PC2a This is useful to apply & put structure to my learning	PC2b This was poor in structure
PC3a This was a shock to me	PC3b I know about this from before
PC4a This is more important fro my learning	PC4b This is not so important for my learning
PC5a More open	PC5b Less open
PC6a More useful	PC6b Not so useful
PC7a Unstructured (but useful)	PC7b More vectored (but useful)
PC8a Interesting but not enlightening for my learning	PC8b More enlightening
PC9a Helps me to recognise to make choices in life	PC9b This pushes me to be reactive
PC10a This 360 degrees- me as a whole	PC10b This is too focused - on certain pre-defined outcomes
PC11aHigh quality presentation is more satisfactory for my learning	PC11bLow quality is unsatisfactory for my learning
PC12a An example helps me move forward	PC12b A lack of example can slow things down
PC13a Formal	PC13b Informal learning
PC14a Required	PC14b I choose to do this

Sam (active)

PC1a Self-directed learning	PC1b Interactive learning
PC2a Did before lectures	PC2b Did throughout the course
PC3a Less time to reflect	PC3b More time to reflect
PC4a More freedom of choice	PC4b Less choice
PC5a Voluntary	PC5b Involuntary
PC6a More opp to absorb material	PC6b Less opp.to absorb material
PC7a Learned More	PC7b Learned Less
PC8a Did this to facilitate my learning process	PC8b Was required to do to achieve final outcome
PC9a More Satisfactory	PC9b Less Satisfactory
PC10a More effective	PC10b Less effective
PC11a Motivating experiences	PC11b De-motivating experience
PC12a Do More Often	PC12b Do less often
PC13a Made difference to my learning	PC13b Made Lesser difference to my learning

Shelly (moderate)

PC1a I did this on the computer	PC1b Did this in my own environment
PC2a This is an administrative learning activity	PC2b This is an activity to construct my learning
PC3a Time is an issue	PC3b Time is not an issue
PC4a There are economic costs for doing this	PC4b Cost is not an issue
PC5a This is inflexible for my learning	PC5b This is more flexible for my learning
PC6b Solitary learning	PC6a Interaction with others for learning
PC7b I am not able to bounce ideas	PC7a I am able to bounce ideas with others
PC8a This is effective when I am doing an offline course	PC8b This is not effective when I am doing an offline course
PC9a I have more control over this	PC9b I have less control over this
PC10a Satisfactory	PC10b Not so satisfactory for my learning
PC11a I did not feel a connection with other	PC11b This allowed some connection with others
PC13a I gained a lot more for my learning (construction)	PC13b I didn't gain much for my learning
PC14a This is my not learning style	PC14b This is my learning style
PC15a I did this more for my learning	PC15b I did this less
PC16a Did not feel inhibited in doing this	PC16b Felt inhibited in doing this
PC17a Felt competent doing this (less apprehensive)	PC17b Felt apprehensive doing this
PC18b Has not helped to think about application to work	PC18a Helped me to think about applying learning to work

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Glossary

Blended learning: Learning events that combine aspects of online and face-to-face instruction. (Learning Circuits Glossary)

Digital Divide: The gap that exists between those who can afford technology and those who cannot. (Learning Circuits Glossary)

Discussion boards: Forums on the Internet or an intranet where users can post messages for others to read. (Learning Circuits Glossary)

E-learning (electronic learning): Term covering a wide set of applications and processes, such as Web-based learning, computer-based learning, virtual classrooms, and digital collaboration. It includes the delivery of content via Internet, intranet/extranet, audio- and videotape, satellite broadcast, interactive TV, CD-ROM, and more. (Learning Circuits Glossary)

E-literacy: described as the ability to locate, manage and use information effectively for a range of purposes.

E-portfolio: is a portfolio based on electronic media and services. It consists of a personal digital record containing information such as personal profile and collection of achievements, information on which different services can be provided to the owner of the e-Portfolio and the people and organisations to whom the owner has granted access. (Wikipedia 2005)

Face-to-face: Term often used to describe the traditional classroom environment. (Learning Circuits Glossary). Students and teachers are in the same location at the same time (Learning Glossary)

Online community: A meeting place on the Internet for people who share common interests and needs. Online communities can be open to all or be by membership only and may or may not be moderated. (Learning Circuits Glossary)

Online learning: Learning delivered by Web-based or Internet-based technologies. (Learning Circuits Glossary)

Learning space: An imaginary geography in which the learning enterprise flourishes. (Learning Circuits Glossary)

Paradigm *research paradigm* we mean a set of beliefs, values, and assumptions that a community of researchers has in common regarding the nature and conduct of research. The beliefs include, but are not limited to, ontological beliefs, epistemological beliefs, axiological beliefs, aesthetic beliefs, and methodological beliefs. (Khun 1977)

pedagogy (pèd-e-go´jê) Literally means the art and science of educating children, pedagogy is often used as a synonym for teaching. Pedagogy embodies teacher-focused education. (Learning Glossary)

Personalization: Tailoring Web content to an individual user. Can be accomplished by a user entering preferences or by a computer guessing about the user's preferences (Learning Circuits Glossary)

Personalized system of instruction (PSI): A teaching technique that involves dividing course material into segments, evaluating learner performance on each segment for subject mastery, and allowing learners to move from segment to segment at their own pace. (Learning Glossary)

Postgraduate: Term used to describe the level of education that is higher than and usually accessed after completion of a bachelors or undergraduate level of study. The postgraduate study may include a certificate, diploma, masters or doctorate level of study. In this research the term referred to online or blended courses at certificate, diploma and masters level.

Post registration: Term used to describe the registration status of nurses who have completed their initial registration training to practice. Post registration education refers to continuing professional education, necessary for nurses to keep-up-to date and to develop expertise in identified specialisms.

Overseas learners: Learners from a country different from the country they are studying in.

Home learners: Learners from the country they are studying in.

VLE: Virtual Learning Environment: Used to manage the delivery of online learning materials and assessment. Includes curriculum mapping and monitoring of the learner's progress. On completion, updates the student profile with details of activities undertaken. Uses web browser technology. A VLE links to administrative systems, both in-house and external. (JISC 2004)

Weblog or Blog: "The blogs give us a chance to communicate between us and motivate us to write more. When we publish on our blog, people from the entire world can respond by using the comments link. This way, they can ask questions or simply tell us what they like. We can then know if people like what we write and this indicate[s to] us what to do better. By reading these comments, we can know our weaknesses and our talents. Blogging is an opportunity to exchange our point of view with the rest of the world not just people in our immediate environment." (Downes 2004, 14)

Wiki: "a wiki is a freely expandable collection of interlinked WebPages, a hypertext system for storing and modifying information – a database, where each page is easily edited by any user with a forms-capable Web browser client" (Leuf and Cunningham (2001, 14).