A New Age of Constructivism: ‘Mode Neutral’

PETER REED, BRIAN SMITH & CATHY SHERRATT
Edge Hill University, Ormskirk, United Kingdom

ABSTRACT This article presents work in progress exploring social constructivism within Mode Neutral, and how various conditions impact upon the student experience. Mode Neutral’s three dimensions – curriculum design, the role of the tutor and communication for learning – are affected by the conditions that can vary in any given context. The authors realise that both students’ and tutors’ expectations may be different, thus creating a different learning experience for each individual. The article also proposes a model for teaching and learning that identifies some (but not all) of the conditions that have been resident in their (and others’) research into the use of social constructivism within the learning experience. The consideration of these conditions directly affects the three key dimensions, and ultimately shapes the learning and teaching experience for all participants.

Introduction

Many researchers have dedicated huge portions of their careers to investigating how people learn individually (Piaget, Skinner), as well as their placement within social arenas affecting the knowledge construction processes (Vygotsky). Consequently, sociocultural theory, or social constructivism, is commonly seen as a popular pedagogical approach in contemporary education, allowing learners to interact with others to create opportunities for internalisation, reflection and knowledge construction. This is in direct contrast to traditional approaches to education whereby tutors attempt to verbally transfer their knowledge to the passive learner.

As such, a myriad of research has focused upon how one learns; what happens within group dynamics that encourages learning to take place; how higher education institutions can use these approaches to offer greater flexibility to learners; and how these approaches can be used to recruit from further afield (cf. Piaget, 1967; Vygotsky, 1978; Biggs, 1996; Honebein, 1996; Duffy & Cunningham, 1996; Ehrich, 2006). Herein lies a pertinent question, namely: Do we continue to explore the possibility that theory informing contemporary education may be incomplete, or do we refocus our attention to aggregate and apply specific conditions that have been previously identified through research, and ultimately lead us into a new age of constructivism? Fisher & Baird (2005) agree that educators need to re-evaluate traditional pedagogical strategies and find ways to integrate curriculum, technology, community, and learning in a manner which supports student motivation, self-regulation and retention in virtual learning environments. (Fisher & Baird, 2005, p. 89)

We believe that ‘Mode Neutral’ is a positive step in this direction (Smith et al, 2008). Deep-rooted in social constructivist theories, it engages learners more readily by, amongst other things, promoting the message that absence during classroom sessions is acceptable, as students engage with the same rich material online through the virtual learning environment (VLE) as they would do in the classroom, therefore allowing students to interact with content, and indeed each other, through whatever means they prefer, require or professional commitments demand.
The purpose of this article is to share how we have considered research relating to social constructivism, and its impact upon the development of our ‘model for teaching and learning’ within Mode Neutral.

We also consider the emerging ‘conditions’ from our ongoing research, which include (amongst others) the sense of belonging, levels of intimacy, and the contextual voice within the learning experience. As we continue to strengthen the key dimensions of learning and teaching and the related student experience, we start to ask ourselves if we are in ‘a new age of constructivism’, appreciating the impact of specific conditions within the key dimensions of Mode Neutral:

• curriculum design (CD);
• the role of the tutor (RT);
• communication for learning (CL).

By gaining a thorough understanding of the conditions affecting the dimensions, perhaps academics can then micro-develop the learning experience to offer learners flexible and worthwhile experiences. From this standpoint, we are concerned with three key areas: designing with social constructivism in mind, student (learner) expectations of social constructivism and tutor expectations of social constructivism.

A likely starting point for this article would be to show a brief systematic review of literature supporting the development of Mode Neutral in social constructivist settings. First, however, we must define what we mean by ‘Mode Neutral’. In our previous work on ‘Mode Neutral pedagogy’ (Smith et al, 2008), we introduced the definition of Mode Neutral as ‘a method that allows students to progress across modes of delivery (face-to-face, online and blended) at any point throughout their study based on their preferences, requirements, personal and professional commitments without compromising their learning’.

The principles of Mode Neutral are underpinned by several educational theories, some of which will be briefly surveyed here (the field is too large to permit a concise history showing how research and theory have reached this point). To stay true to our earlier brief, we should first of all rewind our thoughts to the works based around constructivism.

**Literature Review**

Constructivism is the epistemology suggesting knowledge is ‘internalised’ by learners, whereby their current knowledge, life experience and their version of the world as they experience it directly affect the construction of new knowledge and understanding (Piaget, 1967). Social constructivism adds a previously forgotten element, namely interaction with peers and tutors. Social constructivism, represented by the work of people such as Lev Vygotsky (1978), John Dewey (1938) and Richard Mayer (1983), recognises and rewards the individuality of learners, suggesting interaction with peers allows for a dynamic sharing of knowledge, understanding and experiences, which, through debate, critical reflections and problem-solving tasks, can lead to the construction of one’s own knowledge and understanding. Vygotsky’s sociocultural theory (1978) provided much of the basis for social constructivist theories, suggesting there is a series of inner or mental transformations that take place in learning, such as the development of ‘higher thought’ and ‘concept development’.

These transformations take place through what Vygotsky (1978, p. 56) termed ‘internalisation’ – the ‘internal reconstruction of an external operation’. Put simply, this internalisation occurs over a number of levels. To explain crudely: external operations are reconstructed internally, and interpersonal processes are reconstructed to intrapersonal processes. According to Ehrich (2006, pp. 13-14), the ‘quintessence of his [Vygotsky’s] theory of sociocultural development’ is captured in the notion that ‘all the higher mental functions such as voluntary attention, logical memory, and concept formation, have their origins as a consequence of human interaction’.

Sociocultural and, later, social constructivist theories also led to developments around ‘active learning’: the notion that learning is not a passive process, but rather requires active involvement and engagement with both materials and peers. Indeed, this mirrors the view of Lefoe (1998) that learners are unique and should welcome the chance to contextualise their learning by doing rather
than by simple acceptance of information. Duffy & Cunningham (1996) also stress that the learner should take responsibility for knowledge construction opposed to passive learning by instruction.

More recently, social constructivism has spawned Wenger’s (1998) work around ‘communities of practice’: the notion that a group of people who share an interest with one another may positively influence the development of knowledge and understanding regarding the specific area of interest, through interaction and communication within and amongst that community. Many researchers are interested in what happens within these communities that allows individuals within to learn/construct; and this gives rise to the notion of a ‘learning community’, which we espouse.

Sackville (2002, p. 538) sees the ‘communication that may exist between people and with information supplied to, generated for or by members of a group, or offered by a tutor/e-moderator’ resonant within the domain of ‘interactivity’. Inherent within effective socially constructive curricula, interactivity is witnessed within various parameters (Moore, 1989):

- learner–content;
- learner–learner;
- learner–tutor.

Sackville (2002) highlights the complexity of these parameters. Each can be seen to be synchronous or asynchronous, private or public, one-to-one, one-to-many, small group or many-to-many. Sackville expands upon this by adding two further parameters:

- learner–technology;
- learner–professional community they belong to.

Research carried out by Gregory (2003) reinforces the importance of synchronous interaction with peers and tutors for students studying Library and Information Science programs. In comparing communication methods across face-to-face and online study environments (separately), she highlights students’ feelings of isolation with respect to tutors and peers in complete asynchronous communication methods for online learning courses. She concludes:

> it is nevertheless clear that they [students] have generally come to perceive that the quality of their educational experience may be significantly improved when there is included within, or as an integral part of the course offerings, some meaningful level of real-time interaction with their instructors and with other students then taking the same class. (Gregory, 2003, p. 426)

Recognition for this real-time interaction has been identified (Smith et al, 2008), but just what occurs within Wenger’s communities of practice and through the interaction mentioned above has been the focus of work by researchers for over 30 years. Vygotsky (1978) introduced the ‘zone of proximal development’ (ZPD), referring to the gap that an individual learner can achieve alone, ‘potential development as determined by independent problem solving’, and what a learner can achieve through ‘problem solving under adult guidance or in collaboration with more capable peers’ (Wood & Wood, 1996, p. 5). ‘Building’ upon and exploiting the ZPD, Wood et al (1976) introduced the metaphor of ‘scaffolding’, investigating the nature of tutorial support and, in particular, focusing upon assisting learners (children) to perform tasks that they are unable to perform alone. The previously mentioned internalisation process is reiterated throughout this ZPD, and presumably applies equally to the notion of scaffolding.

Sherratt & Sackville (2006) expanded the aforementioned ideas of both scaffolding and communities of practice when they introduced the seemingly obvious notion of ‘peer facilitators’. Tutors come to play less of a central role in scaffolding knowledge within communities of practice when this role is adopted by peers.

Thus far we have highlighted research surrounding communication and engagement within communities of practice, and their importance within social constructivist theories. Something of an issue, but nonetheless a key factor for successful implementation of constructivist approaches, is the role the tutor plays within the teaching and learning environment. Various researchers refer to the tutor with differing terminology, such as ‘e-tutor’, ‘e-mentor’, ‘e-facilitator’ and ‘e-moderator’, among other terms. Wood & Wood (1996) refer to the ‘contingent teacher’, a notion based upon two key principles that mark ‘patterns of instruction’: ‘more help when the learner gets into difficulty, and offer less help as they gain in proficiency’ (p. 8).
Picking up from this work, Salmon (2000) introduced the ‘5-Stage Model for e-Mentoring’, suggesting a shift in the roles of the tutor and learners alike, as time progresses throughout the teaching and learning experience. She suggests that initial aspects of course delivery involve heavy guidance from the module leader (stages one and two). In these introductory moments of the teaching and learning experience, there may be a relatively high requirement of the tutor to take a more active and instructive role in delivery. Students may need help in overcoming technical difficulties using the VLE and any other tools being used. They may also require help in overcoming diffidence in projecting their own views, experiences and beliefs; a point reinforced by Sharpe & Benfield (2005).

There is emphasis upon the early withdrawal of the tutor into more of a supportive and loosely guiding role, posing questions and hinting at ways in which a debate may be developed, thus providing a scaffold for learners. The tutor’s involvement in a debate will largely focus on offering a facilitated rather than instructive approach to learning. Student interaction, collaboration and mutual support increase throughout the module so that by the end, the student is self-directive and self-reliant (stages four and five).

Social Constructivism in a Mode Neutral Curriculum

Thus far we have introduced a number of theories and research pertinent to the epistemology of social constructivism. How does Mode Neutral differ? In short, it doesn’t. Rather, it expands upon these theories and, through understanding them, we have focused upon the practical application of a number of conditions within both face-to-face and online teaching and learning. Although research is ongoing, we have already published some early findings from a sample Mode Neutral module (Smith et al, 2008).

Since introducing Mode Neutral, we have scrutinised and analysed our own work and definitions. Many researchers today refer to the ‘delivery’ of curriculum content, as indeed have we (Smith et al, 2008). However, do we still deliver content? In Mode Neutral, the answer is ‘definitely not!’ We seek to develop a learning community that engages learners with content and we place particular emphasis upon the distinction between delivery and engagement, since the former suggests instruction as opposed to construction. We emphasise the importance of placing responsibility for learning onto the learner. Pedagogues often attempt to recreate or utilise a concept or theory practised by researchers. Unique to Mode Neutral is the seamless transition across the ‘modes of curriculum engagement’ and, therefore, these seamless transitions should be apparent within any, and all, of the attempted inclusions of researched practices and theories or, as we define them within our model, ‘conditions’. In attempts to create an equal learning experience across the modes, numerous conditions should be applied in order to create a balance and maximise the student learning experience.

Exploring the Balance within Learning and Teaching

In our earlier work (Smith et al, 2008), we emphasise that in order to maximise the student experience (SE) within social constructivist settings – whether online settings or learning and teaching settings in general – academics should consider three vital dimensions: the role of the tutor (RT), curriculum design (CD) and the mechanisms in place to allow for communication for learning (CL).

Through our ongoing investigations, academic debate and reflection, we have built upon and developed this notion further. We propose that the RT, CD and CL are not one-dimensional, as initially represented by Figure 1. Rather, we see that each of them varies in ‘depth’ because of specific conditions. That is, the RT (or indeed the presence of the tutor in online discussion) can be greater or lesser in any given context, as can the considerations for CD, and the mechanisms in place to allow for CL. In essence, the depth of each of the strands will initially be generative of consideration for purpose, audience and (less so) form, as introduced by Schofield (2006). As educators are generally expected to be flexible and respond to the needs of learners, the depth of any strand may vary part way through curriculum facilitation. Figure 2 represents our three dimensions (RT, CD and CL) contributing to the overall student experience.
To further elaborate, the tutor may play a facilitative role in online discussion, having considered the chunking of content and signposting of materials, and triggered debate providing opportunity for CL. In such a case, the balance of the dimensions would be visible (see Figure 3).

We see this model as equally applicable to both traditional face-to-face and online approaches to learning and teaching. Furthermore, we see tutor styles such as instructive and socially constructive approaches reflected through the various dimensions.
Figure 3. Model for learning and teaching applied to a practice example.

**Designing for Social Constructivism**

As our literature review suggests, gaining a thorough understanding of the theoretical concepts surrounding social constructivism is in itself a difficult task. The application of these principles and our conditions for learning and teaching lead to a myriad of difficulties as instructional design theories are typically instructional and procedural in nature. Consequently, major problems in their application include embedding learning in social experience, balancing the control of learning with the desire to promote personal autonomy, and thus encouraging self-awareness of the knowledge construction process. Tam (2000) sees the challenge as ‘providing a rich context within which meaning can be negotiated and ways of understanding can emerge and evolve’. Emerging from the design of such constructive learning environments, Cunningham et al (1993) recommend ‘pedagogical goals’ to set designers on the right path. Honebein (1996) has effectively summarised the goals as follows:

1. **Provide experience with the knowledge construction process**
   Students take primary responsibility for determining the topics or subtopics in a domain they pursue, the methods of how to learn, and the strategies or methods for solving problems. The role of the teacher is to facilitate this process.

2. **Provide experience in and appreciation for multiple perspectives**
   Problems in the real world rarely have one correct approach or one correct solution. There are typically multiple ways to think about and solve problems. Students must engage in activities that enable them to evaluate alternative solutions to problems as a means of testing and enriching their understanding.

3. **Embed learning in realistic and relevant contexts**
   Most learning occurs in the context of school whereby educators remove the noise of real life from the learning activity. For instance, word problems in math textbooks rarely relate to the types of problems found in real life. The result is the reduced ability of the students to transfer what they learn in school to everyday life. To overcome this problem, curriculum designers must attempt to maintain the authentic context of the learning task. Educators must ground problems within the noise and complexity that surrounds them outside the classroom. Students must learn to impose order on the complexity and noise as well as solve the core problem.

4. **Encourage ownership and voice in the learning process**
   This illustrates the student-centeredness of constructivist learning. Rather than the teacher
determining what students will learn, students play a strong role in identifying their issues and directions, as well as their goals and objectives. In this framework, the teacher acts as a consultant who helps students frame their learning objectives.

5. Embed learning in social experience
Intellectual development is significantly influenced through social interactions. Thus, learning should reflect collaboration between both teachers and students, and students and students.

6. Encourage the use of multiple modes of representation
Oral and written communication are the two most common forms of transmitting knowledge in educational settings. However, learning with only these forms of communication limits how students see the world. Curricula should adopt additional media, such as video, computer, photographs, and sound, to provide richer experiences.

7. Encourage self-awareness of the knowledge construction process
A key outcome of constructivist learning is knowing how we know. It is the students’ ability to explain why or how they solved a problem in a certain way; to analyze their construction of knowledge and processes. Cunningham et al (1993) call this ‘reflexivity,’ an extension of metacognitive and reflective activities. (Honebein, 1996, pp. 11-12)

Honebein goes on to suggest that designers who consider these ‘goals’ in development are on course for creating learning environments that are constructive. However, he also insists that ‘it is important to note that these goals provide just the framework; the designer’s interpretation of the goals and subsequent translation into learning activities is the real art in the design of constructivist learning environments’ (Honebein, 1996, p. 23).

So how does Mode Neutral fare with respect to Cunningham et al’s pedagogical goals? The following description highlights the seven goals, albeit in a different ordering.

As we have already indicated, central to the idea of Mode Neutral is the seamless transition across modes within a single community of practice, maximising interaction with the various parameters. Module content is chunked into a series of time-released units of learning. The traditional text-based content is replaced with more interactive and engaging material such as audio, video and interactive simulations, thus encouraging the use of multiple modes of representation (goal 6). We see this high level of interaction and engagement as a prerequisite of online courses in this new age of constructivism.

In examining the language used in the development of units of learning, we find a shift in ownership from tutor to learner, as suggested by Wood & Wood (1996) and Salmon (2000). Rather than ‘spoon-feeding’ learners, Mode Neutral encourages student interaction with various materials (journals, reports, latest news, etc.) in order to develop their opinions and pursue their own lines of enquiry relating to the topic (goals 1 and 4), bringing issues and concerns to the fore within the social discussion in class or in the online forums (goal 5). Furthermore, students are encouraged, where possible, to extend these learning situations and discussions into working practices, thus creating conditions for transferability and experiential learning.

Each unit of learning also contains an activity/problem that is ‘anchored’ within the context of the learners’ domain/working practice (goal 3). The activities usually encourage debate around a theme previously covered within the unit, allowing learners to share personal experiences and perspectives (goals 2 and 5) – a key notion that resonates throughout social constructivist theories. In these environments, the tutor ‘holds back’ and takes a facilitative approach, encouraging learners to communicate amongst themselves. This approach allows learners the opportunity to reflect upon issues in order to construct and reconstruct their own and peers’ knowledge construction processes. The facilitative tutor remains present in face-to-face and online discussions to reassure students and address areas of concern. The assessment for the module is typically a product of reflexivity, encouraging development of metacognitive awareness amongst learners (goal 7).

One problem we have faced in designing a constructivist learning environment concerns using an off-the-shelf VLE. WebCT and Blackboard, although excellent tools in their own right, impose a procedural and instructional approach within the linear nature of course design, in that there is little opportunity to conform to Willis’s constructivist-interpretivist instructional design model and its key characteristic, whereby “[t]he design process is recursive, non-linear, and
A New Age of Constructivism

sometimes chaotic’ (Willis, 1995, in Tam, 2000). An obvious approach to achieve such a characteristic within instructional design would be through the development of purpose-built VLEs, a path a number of higher education institutions in the United Kingdom have followed in order to provide greater flexibility in online course development. However, it should be borne in mind that any institutional VLE will, by the nature of its overarching structure, impose at least to some extent a ‘one size fits all’ experience (unless it is constructed specifically for a particular course!), and thus is likely to impose an inherent linearity that still confounds Willis’s proposition.

Student Expectations of Social Constructivism

The topic of student expectations of social constructivism is one of interesting debate, with surprisingly little work to refer to. Here, however, we consider certain factors that might impact upon the expectations of the student:

• Students will inevitably arrive with some expectations of online learning and its associated experience, either through ideas, discussions with past participants or possibly through their own previous experience. However, learners may not have experienced constructivist approaches to learning and teaching and, as such, may be ‘conditioned’ to traditional ‘chalk-and-talk’ approaches, thus not understanding what is required and expected of them in this new age.

• The other side of the argument suggests that some learners are more accustomed to technology than in traditional times; technological and pedagogical innovation provides greater opportunities for richer educational experiences and, thus, students may arrive with expectations of being challenged in a number of ways throughout the learning process.

• Across the range of participants, the desired level of support will vary. As Sherratt’s (2008) research identifies, within any typical cohort, some students prefer active tutor involvement and some do not, and, as Sherratt highlights, this is true for both the active and ‘silent’ learners.

• Students are increasingly expecting ‘induction’ into learning, and this is never more true than in online settings. Indeed, Sharpe & Benfield (2005, p. 6) argue that: ‘It is clear that we need to be more explicit in our explanations to students of the purposes of online work and our expectations for the activities they will undertake.’ This ‘induction’ is the most opportune moment for tutors to detail their approach and highlight what social constructivism means for the learner (Sackville & Sherratt, 2007).

Our own prior experience has shown us that the student experience is disadvantaged when learners are unaware of the expectations placed upon them (current research). As such, instructional design within Mode Neutral caters for the ‘welcoming’ of learners into the online environment through informal discussion with tutors (video-based), where the pedagogical approach is explained to highlight the expectations placed upon learners and their potential benefits, and thus again reinforcing the promotion of metacognitive awareness. If we expect participants to actively engage in online learning and communication (for example, computer-mediated communication), they must be aware of the potential benefits and its importance within the learning experience. Knowledge of this importance can assist in developing learner motivation – a potential condition in our model.

Hand et al (1997), Taylor & Maor (2000) and Sherratt (2008) are just a few who have actively researched the student experience of social constructivism. Taylor & Maor published interesting results to their assessment of the efficacy of online teaching at M.Sc. level with their Constructivist On-line Learning Environment Survey (COLLES). They found students expected and preferred to be engaged in critical thinking related to their professional practice, and that students value the opportunity to interact freely within peers with little mediation from the tutor (Taylor & Maor, 2000).

Hand et al (1997) focused their work on student perceptions of social constructivism in junior secondary schools (years 7-10: 12-15 year olds). High percentages of students across the age range (up to 75%) preferred the social constructivist approach to teaching/learning to the way they were taught in other years (traditional ‘chalk and talk’). The educational immaturity of these students did not compromise learning, although their prior expectations are likely to have been different from those of more experienced learners. As these students become ‘educationally mature’, it is likely they will come to develop expectations, and seek the positive aspects of their prior learning...
experiences. As such, their experiences as highlighted by Hand et al (1997) are relevant in order to determine potential student expectations of social constructivism. The range of positive feedback from the students in this case study included: freedom to become more independent in their learning; freedom to discuss ideas openly with peers, develop their own ideas and to largely determine the course of lessons; less note-making and greater understanding of concepts through thinking for themselves.

Mode Neutral attempts to provide opportunities to cater for these varying student expectations in a number of ways. Anchored instruction places learning into context, and participants take responsibility for their learning as tutors no longer ‘spoon-feed’ material. Issues are raised that allow students to interact amongst themselves and with various materials in order to form opinions. The role of the tutor here is to challenge learners’ assumptions and, where necessary, provide support.

**Tutor Expectations of Social Constructivism**

We are particularly interested in what the tutor can come to expect from both the environment and its participants in this ‘new age of constructivism’.

A tutor with roots in contemporary educational theory will likely be familiar with Wood & Wood’s (1996) notion of the ‘contingent teacher’ as well as Salmon’s ‘5-Stage Model for e-Mentoring’ (2000), both of which propose ‘ideal’ tutor behaviour in constructivist environments. Tutors who understand these ideas will expect students to be more dependent in the early stages of online study, with the students seeking tutor presence to help make them feel more secure, to reassure them and to provide technical support.

Another basic expectation for the tutor should be the realisation that learners learn in different ways (a condition of respect for individual learning styles) and socially constructive approaches may not suit all. Amongst others, this could be one particular cause for the ‘silent learner’, ‘witness learner’ or ‘lurker’ (Fritsch, 1999) – terms relating to ‘students who are not actively participating via written contributions at a particular point, but who nevertheless are still engaged in the process as observers (witnesses) of the written exchanges taking place online between other students’ (Beaudoin, 2002, p. 148).

This notion has caused great concern amongst academics and researchers alike, prompting studies to investigate this ‘phenomenon’. Kollock & Smith (1996) describe ‘lurkers’ as ‘free-riders and non-contributing, resource-taking members’ (in Gulati, 2004). However, few have actually considered, empathised with and investigated the actual activity within their role during online learning experiences (Beaudoin, 2002). If a student sits at the back of the classroom and chooses not to participate in the group discussion, does it mean he/she is not learning? Is that learner incapable of listening to, reflecting upon and internalising the discussion of others? Of course not – so why do we presume that when this occurs in the online environment, the participants are not learning? Some authors comment on the ‘invisibility’ of ‘lurkers’, as their reading and reflection may not be reflected in discussion board postings; in the same way, we have no real idea whether the quiet student in the classroom is really listening or not!

The quintessence of Vygotsky’s (1978) sociocultural theory is the placement within a social setting, allowing the views and knowledge construction of an individual to be scaffolded by the views and opinions of others within that community of practice. However important the role society plays in the process, learning is internal within an individual. In constructivist theory, it is an individual’s views and opinions, albeit shaped by the community, which are internalised and constructed. Therefore, is it plausible to suggest that a passive role in the community prevents or denies knowledge construction? Beaudoin’s (2002, pp. 149-150) investigations highlight otherwise, with a number of genuine reasons for non-participation, including:

- preferring to read what others write;
- being uncomfortable at writing ideas in an online environment;
- peers portraying similar thoughts before having the opportunity to post.

Experiences showing 100% participation in CMC have proven difficult to find, and so tutors in this new age of constructivism can come to expect the ‘silent learner’ or ‘lurker’ to be existent to some greater or lesser degree. The question, therefore, should not be ‘How can we prevent “lurking” per
se?' but rather 'How do we ensure rich communication to ensure all students (active and less active) have opportunity for reflection, and can internalise and construct knowledge from these social experiences?'

We have considered this question in practical development within Mode Neutral. As a result, tutors should recognise the possibility of 'silent learning', and identify and encourage these students to participate in group discussion. One-to-one contact via email or telephone helps to instil identity, reassurance and confidence from the learner's perspective yet, from the tutor's perspective, provides the all-important feedback regarding the silent-learning process. Questions can be asked to tease out opinions and thoughts from online discussion to assist in the reflexive (a further condition) processes and formation of a 'pool of reflection' (Smith et al, 2008), which students can develop and use to inform the knowledge construction process. Other deliberate attempts can be made to reduce the opportunity for lurking through constructive alignment – discussion activities can be connected with objectives, outcomes and assessments. Assessment, therefore, can require students to participate in a specific percentage of online discussions that are relevant to the completion of, for example, a 3000-word written piece. Group work activities and peer-mentoring can also go some way to ensuring communication, thus reducing the opportunity for lurking.

Despite these efforts, we still accept that lurking will take place, and hypothesise that if educators consider such conditions as developing content that is rich, engaging and anchored within the context of practice, and that goes some way toward challenging the views and opinions of participants, then group discussion will likely benefit learners who position themselves on the margins and encourage them to take a more reflective role.

Conclusion

As our literature review suggests, making sense of the multitudes of research and concepts related to social constructivism is a difficult task. Their subsequent application to learning and teaching scenarios is, needless to say, an even more daunting and complex prospect.

Our application of Mode Neutral has been through, although not limited to, the consideration of specific theories relating to social constructivism. The development of Mode Neutral has come from the various demands placed upon contemporary education; that is recruiting students from wider areas and providing greater flexibility for those participating. Central to the idea of Mode Neutral is the provision of a student experience independent of the mode in which a curriculum is accessed (face-to-face/online). To a great degree, this revisits the idea of blended learning. Whereas in traditional blended-learning environments tutors would control the balance of class-based and online content, Mode Neutral shifts this control to the student. In other words, the students dictate which content they wish to access in class and online at any particular time throughout their studies. This could be dependent upon work or family commitments, but ultimately Mode Neutral goes some way to delivering the flexibility promised by e-learning all those years back.

Our work realises that both students and tutors will undoubtedly come to learning and teaching settings, particularly those resonating social constructivism, with their own expectations, and considers how educators can design to allow for and promote the construction of knowledge through social interaction. We have also come to propose a model for teaching and learning with dimensions heavily dependent upon a number of conditions that can be different for any given context.

We conclude this article with a number of thoughts:

- Will Mode Neutral align with instructional or behaviourist approaches to learning and teaching?
- Questions are often asked about the appropriateness of social constructivist approaches to children's education. We propose that the student experience of social constructivist approaches is not dependent upon an educational maturity of the student (as identified by Hand et al, 1997), but more dependent upon the learning context. We believe that everyone, children and adults alike, can construct understanding and knowledge through social interaction. Indeed, the notion
of ‘play’ amongst children, where emphasis is placed on little structure and rules, resonates throughout primary schools across the globe. Children can scaffold each other’s development in relation to the learning regarding skills and knowledge related to computer games, therefore suggesting transferability into more formal education.

- The student experience of social constructivist approaches is undoubtedly a result of the tutor’s educational maturity and understanding of social constructivism itself. Furthermore, we propose that the defining characteristics of the tutor’s personality traits (for example, charisma and respect for learners) directly affect his or her ability to give responsibility for learning to participants, by acting more as a facilitator or ‘guide on the side’ in educational settings.

Finally, we predict that regardless of how charismatic and educationally mature a tutor may be, how engaging the content may be, and how a curriculum considers the role of the tutor, curriculum design and communication for learning, it is likely that only seldom will 100% of participants be completely happy. Educators must recognise the individuality of learners and differentiate approaches to meet their needs. This is best achieved by understanding the conditions that are resident within the student experience – which we have found within our model for teaching and learning.

We recognise that our explanation of the model does not include an exhaustive list of conditions, therefore we hope to identify and publish further conditions affecting the three dimensions in future articles. However, we believe that the model for teaching and learning introduced in this article allows us to ask a most pertinent question: Are we approaching a new age of constructivism, whereby pedagogues can consider the range of conditions that contribute to the key dimensions of learning and teaching?

References


A New Age of Constructivism


PETER REED is project coordinator for a number of Edge Hill University’s funded e-learning projects, most notably the Pathfinder Project, funded by the Higher Education Academy (HEA), and the RePRODUCE Project, funded by the Joint Information Systems Committee (JISC). He also acts as consultant to Edge Hill’s Faculty of Health with regard to e-learning development and
support. Alongside colleagues, his research has uncovered Mode Neutral pedagogy, and has particular interest in the role of the tutor in both classroom and online social constructivist facilitation. Correspondence: Peter Reed, Edge Hill University, St Helens Road, Ormskirk L39 4QP, United Kingdom (reedp@edgehill.ac.uk).

BRIAN SMITH is a senior lecturer and SOLSTICE fellow (champion in e-learning) at Edge Hill University. His research interests centre on the teaching and learning within the e-learning context. He is currently completing a Master’s in e-learning and publishing his research findings on Mode Neutral pedagogy. While Brian’s research activities have been centred on e-learning, he continues to strengthen the Faculty of Health’s provision by placing perioperative care, critical care, operating department practitioner education and more at the forefront of his work. Brian also acts as an external examiner, editorial reviewer for publications and e-learning consultant for other universities and professional bodies. Correspondence: Brian Smith, Edge Hill University, St Helens Road, Ormskirk L39 4QP, United Kingdom (smithb@edgehill.ac.uk).

CATHY SHERRATT is a senior lecturer in clinical/higher education and senior SOLSTICE fellow at Edge Hill University, where she leads an online MA in Clinical Education. Her current research focuses on the role of the tutor and students’ expressed need for support in the online learning environment, and has been presented recently at the Networked Learning and Improving University Teaching international conferences. Correspondence: Cathy Sherratt, Edge Hill University, St Helens Road, Ormskirk L39 4QP, United Kingdom (sherrattc@edgehill.ac.uk).