A Social Constructivist Approach to Assessment at Induction Level

In reality it is through classroom assessment that attitudes, skills, knowledge and thinking are fostered, nurtured and accelerated – or stifled

Hynes (1991)

Introduction

As part of my role in Learning and Development I was involved in the setting up of a new Contact Centre for FBD Insurance. My responsibility was to design an induction plan and deliver training. Due to the timescale of the project and the numbers involved it was an intensive piece of work with 2 new groups of fifteen people starting their induction training every 5 weeks. As training progressed we learnt from experience and reviewed aspects of the course that didn't work, amending content as required and improving delivery techniques. On reflection one area of the course that was not reviewed was the area of assessment. Our rationale was that the content still had to be assessed regardless of how it was delivered. However I now realise that the format of the assessment was not appropriate, it assessed basic knowledge and skills but it did not assess understanding and hence it could be argued that it encouraged surface learning. The empirical research conducted by Marton and Säljö (as cited by Atherton 2011) suggests that there are 2 approaches to study which students adopt, these approaches are described as deep learning which can be summarised as learning to understand and surface learning which is learning merely to reproduce facts. Whilst the student may have a preference for a specific approach or may use both, Bowden (as cited by Bradford 2005) suggests that there are features in courses that tend to encourage a surface approach such as immediate assessment and assessment for recall. I hope to demonstrate that the application of a social constructivist approach to the assessments would encourage learners to adopt a deep approach to their learning.

In this paper I will discuss the theory of constructivism and social constructivism and the challenge that social constructivism may present to some of the learners we encountered. I will review the approach to assessment that was taken during the induction and suggest how it could be improved using a social constructivist methodology.

Constructivism and Social Constructivism

Constructivism follows on from cognitivism and whilst both theories concentrate on how information is processed by the student, constructivists believe that learning is an active process where students "*construct*" new knowledge by combining existing knowledge and experience with new information Jordan, Carlile & Stack (2008). For the trainer, instruction becomes a practice of "*supporting the construction rather than communicating knowledge*" Duffy and Cunningham (as cited by Karagiorgi & Symeou 2005) with the aim of creating a learning environment that is tailored to the "*unique interests, styles, motivations and capabilities of individual learners*" Reeves (as cited by G. Lefoe 1997). Wilson (as cited by G. Lefoe 1997) suggests that students have more control in the constructivist learning environment and describes the role of the trainer as being one of "*coach and facilitator*" while Harper and Hedberg (as cited by G. Lefoe 1997) take it a step further and indicate that the role of the trainer is more accurately described as "*co-learner*". Although there are many types of constructivism, social constructivism is my choice for discussion. The theory of social constructivism is underpinned by the role played by society and culture in learning. The work of the Russian psychologist Vygotsky (1934) (as cited in Carlile & Jordan 2005) demonstrates the importance of others in facilitating learning. Alison Garton (2004) describes Vygotsky's theory as being "*an outside-in*" theory with cognitive development being the product of the social historical and cultural background of the child, along with the addition of expert support and guidance to "*lend a hand*" as the child develops. In the social constructivist learning environment group discussion is highlighted as being one of the keys to understanding, Helen Longino (as cited by D. Phillips 1995) argues that knowledge must be viewed as being actively "*constructed not by individuals but by an interactive dialogic community*" while Duffy and Cunningham (as cited by Karagiorgi & Symeou 2005) propose that learning is a social process that is "*inexorably grounded in talk*". Piaget's theory (as cited by Jordan et al 2008) that learning results from cognitive conflict is described by Garton (2004) as a theory that works from the "*in-side out*". Yet it is interesting that Jordan et al (2008) suggest that discussion with peers is effective in provoking the socio cognitive conflict that Piaget's theory demands as discussion with peers occurs on more equal terms than discussion with a teacher and stimulates the conflict important to learning.

Social Constructivism a Challenge for Learners

Learning theories and their suitability to particular aspects of training will always generate discussion. The application of social constructivism to assessment may bring to mind a number of challenges such as the ability to provide accurate grades or the problems facing the instructional designer. However the challenge I wish to discuss here is the difficulty a student with low self confidence or a lack of self-efficacy may have in a social constructivist environment. Pajares (2006)

suggests that group dynamics are powerful and in some cases the learner may feel at a social or academic disadvantage. Windschitl (as cited by Hills 2007) describes constructivism as a "*concept situated in ambiguities*" and Reiman (as cited by Hills 2007) advocates that significant learning will occur in "*periods of conflict, confusion and surprise*" these aspects may not provide any comfort for the learner who is lacking in self confidence as Ryan, Pintrick, & Midgley (as cited by Hills 2007) suggest that the students suffer not only because they do not react well in uncertain situations but also because they may not make their preferences known. Professor Albert Bandura's (1998) thoughts on self –efficacy indicate that the individual's level of self-efficacy will affect how they feel, think, motivate themselves and behave. Students with a low level of self-efficacy may perceive the activity in a social constructivist environment as difficult and challenging as they may not believe in their ability to contribute during group work. For these students Bandura states that they will dwell on their own personal inadequacy, on the impediments they encounter and on negative outcomes rather than on how to achieve success. The challenge for the trainer is how to provide a safe environment for the student that will allow the confusion and surprise Reiman requires. Bandura (1998) suggests that individuals form their self-efficacy perceptions by interpreting information from four sources: mastery experience, vicarious experience, social persuasions, and physiological reactions. Pajares (2006) explains it by stating that learners judge the effects of their actions, and their interpretations of these effects help create their efficacy beliefs. If they experience success through a mastery experience they begin to believe in their ability to achieve. Through vicarious experiences of observing success in a peer who may be considered as similar in capability Pajares (2006) describes it as a feeling of "*If he can do it, so can I*!" for the learner. Through social persuasion, positive verbal messages are given to the learner, these messages encourage the learner to apply the extra effort and persistence required to succeed. Physiological states such as anxiety and stress provide information about efficacy beliefs. Optimism and a positive mood enhance self-efficacy. Pajares (2006) writes that research on optimism has shown that it is related to adaptive academic benefits. These benefits include academic achievement, positive goal orientation and use of learning strategies. Pajares (2006) goes on to state that learners who develop a strong sense of self-efficacy are well equipped to educate themselves when they have to rely on their own initiative.

Applying a Social Constructivist Approach

The goal of the assessment process during induction was to assess the ability of the student to provide insurance quotations based on the information provided, using the appropriate computer application and to assess technical insurance knowledge. Students were given information and asked to provide a number of quotations. In addition they were given a set of multiple choice questions to

test knowledge. Students were expected to work by themselves though they could refer to notes and company guidelines.

According to Cey (as cited by Karagiorgi & Symeou 2005)) authentic learning occurs when instruction is designed to facilitate, simulate and recreate real-life complexities and occurrences. The assessment process as it was did not simulate real life complexity. It assessed system skills and product knowledge separately. The Cognition and Technology Group at Vanderbilt (as cited by Karagiorgi & Symeou 2005)) suggest that when the learning of a concept occurs as separate topics the learning "*remains inert and superficial*". In real life the learner would be expected to ask pertinent questions that would allow them to produce a quotation (the skill) whilst at the same time answer queries (the knowledge) from the client as they arose during the course of the conversation. My suggestion would be that the assessment be conducted through the use of scenarios that tested knowledge in conjunction with skills and that the learners should work on these scenarios together in groups. The requirement for each group would be to provide a solution supported by the rationale. All groups would be required to report and explain their answers to each other and all groups would be asked to provide feedback to each other. Cobb (as cited by Karagiorgi & Symeou 2005) suggests learners should be able to explain and justify their answers and "*openly negotiate their interpretations of and solutions to instructional tasks*". By reporting their findings back to the rest of the class peer feedback and assessment is encouraged which according to Carlile and Jordan (2005) will allow learners to "*develop the criteria for making judgements and evaluating their own performance*". As a result of the group discussion the work load is not just shared but learners are allowed to "*develop, compare, and understand multiple perspectives on an issue*" Karagiorgi & Symeou (2005). With the introduction of group work there is an opportunity to introduce more complex scenarios for discussion Greening (as cited by Karagiorgi & Symeou 2005) suggests that the complexity of the scenarios must be maintained as any simplification "*facilitates memorisation but denies the development of associations between concepts and reflective metacognitive processes*". As there were two classes in induction at any one time there was an opportunity for peer tutoring at assessment time in the form of quizzes set by one group for the other. Not only would this develop interaction between the two groups but it would also have the benefit of clarifying understanding for learners as they prepared the questions. At the time that these assessments took place e-learning or online options were not available. However development of virtual reality simulations cannot be ignored as they promote instructional strategies that assist a more "*active construction of meaning*" Wilson (as cited by Karagiorgi & Symeou 2005). To aid with future instructional design my recommendation would be the use of the design goals outlined by Duffy and Cunningham (as cited by Lefoe 1997) in the table below.

Table 1

Design Goals of a Constructivist Learning Environment or Metaphors to teach by (Duffy and Cunningham, 1996)

1.	All knowledge is constructed; all learning is a process of construction
2.	Many worlds views can be constructed: hence there will be multiple perspectives
3.	Knowledge is context dependent, so learning should occur in contexts to which it is relevant
4.	Learning is mediated by tools and signs
5.	Learning is an inherently social-dialogical activity
6.	Learners are distributed, multidimensional participants in a socio-cultural process
7.	Knowing how we know is the ultimate human accomplishment

An interpretation of these goals as they would apply to assessment is contained in appendix 1

Conclusion

In a Constructivist learning environment the environment should "*stimulate learners so that their thinking is related to actual practice*" Honebein (as cited by Lefoe 1997). Here I have discussed the application of the approach to the assessment aspect only. However even this aspect in isolation would have provided a more realistic learning experience for learners. There is always a transitional phase after training where the student having left the relative safety of the training environment must now cope with applying their knowledge and skills on the job. It can be argued that the introduction of more real life experiences into assessment may reduce that transitional period and promote the transfer of learning to the workplace.

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Appendix 1

Metaphor	Application
All knowledge is constructed: all learning is a process of construction	The learners are provided with a number of scenarios. Each scenario will increase in difficulty. Certain information will be missing which may only be obtained from the trainer
Many world views can be constructed: hence there will be multiple perspectives	The scenarios are discussed by teams The teams will be different each week
Knowledge is context dependent, so learning should occur in contexts to which it is relevant	Scenarios are based on real life occurrences Scenarios encourage the use of system skills and knowledge at the same time Scenarios do not contain all information which links with real life as clients do not always provide all information and must be questioned appropriately
Learning is mediated by tools and signs	The quotation system must be used to produce the quotation required on the scenario Company guidelines may be accessed for any additional information required Company Intranet may be used to access information
Learning is an inherently social-dialogical activity	The teams must report their findings back to the main group The group must provide feedback to each team
Learners are distributed, multidimensional participants in a socio-cultural process	A topic will be assigned to each team. The team must create a number of questions based on the topic Each team must outline their questions and the answers to the group The group to pick the 10 most challenging questions to assess the knowledge of the other group in training in a weekly quiz
Knowing how we know is the ultimate human accomplishment	Learning log to be maintained Reflect on learnings of past week Reflect on how these learnings link with those of the previous week