The Social Sciences 11 (18): 4435-4439, 2016
ISSN: 1818-5800

An Overview of Educational Theories: Social Networking and Learning

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Abstract: This study provides an overview of the current thinking on key beliefs and behavioural practices regarding informal English as a Second Language (ESL) learning via social networking tools. This is undertaken to identify those principles that can best support and inform the learning. The attempt is multidisciplinary and draws on research theories from several distinct fields, namely behaviourism, constructivism and social constructivism approach. Details of these theories illuminate the differences and connections between them in relationship to how learner-users of social networking tools learn and how their behavior is affected. Finally, an argument is put forward for the value of reviewing social networking practices from the perspective of socioculturaltheory.

Key words: Behaviourism, constructivism, reviewing, perspective, networking

INTRODUCTION

This study reviews current literature to provide a theoretical direction for understanding and interpreting social networking-based informal ESL learning for Malaysian university students.It sets out the theoretical orientation of this study as a sociocultural view of social networking-based learning. It also defines key theories of learning which have been or can be applied to observation of young learner's informal interactions with social networking tools. These learning theories are important in helping the researcher draw links between Malaysian university students'informal learning of ESL in these contexts and learning in any setting or those beyond the classroom. The main theories discussed here include behaviourism and constructivism which stand in contrastto the educational theories of Vygotsky (1980) Next the writer examines theories of sociocultural theory which argue that we need to understand learning as a social process and to look closely at sociocultural contexts.

Behaviorism: Behaviourism is traditionally a theory underlying a curriculum centred ideal of education. So far behaviourism is still employed in instruction and is generally linked to the work of Skinner (1958) who believed that teaching was a practice of setting up processes as a basis for learning. Learners can acquire skills by training and reinforcement that are shaped by the presentation of an underpinning stimulus for learner's actions (Skinner, 1958). In this regard, Skinner assumed that higher order thinking skills such as creativity and critical thinking, might additionally be cultured in this manner. He described three kinds of situations that can shape behaviour, namely positive reinforcement, negative reinforcement and punishment (Skinner, 1958).

Subsequently, educational technologies of today inspired by Skinner were based on the rigid ability of extremely basic editions of an educational "machine" such as easy feedback data (wrong answer/correct answer) pursuing the learners' input across a task in order to encourage the student to take an active role in the learning process (Shield, 2000). Skinner (1958) notes the concept of a "Teaching Machine" as "in using the device, the student refers to a numbered item in a multiple-choice test. He presses the button corresponding to his first choice of answer. If he is right, the device moves on to the next item if he is wrong, the error is tallied and he must continue to make choices until he is right" (Skinner, 1958)

Researchers can clearly discern the matchesbetween the teaching machine and much of today's instructional computer software, projected for underpinning student behaviour. Computers and educational technologies are far more complex versions of the teaching machine that guides us to conclude that some behaviourist concepts are quite significant in present educational scenarios. For instance, the use of drill and practice tutorials with individual instructions and feedback drill and practice are still applicable in today's instruction (Shield, 2000). Shield (2000) describes this kind of discovering whereas a learner-user "is rewarded through an encouraging comment before moving on to the next learning

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objective". This practice exists such as in the use of the interactive computer and video games that are so highly engaging to young learner-users. Shield also points out that the students can discover easy skills and thoughts (for example, to memorize bits of information) as an initial attention procedure before the more complex knowledge can be internalized. As a consequence, the students are expected to have learned and reproduced the intended knowledge the teacher planned.

However, critics of behaviourism claim that this theory is not adequate to help the learners in real-life situations because it is impossible for students to discover all kinds of knowledge required in real-life settings from teachers or even from computers. For example, Shield (2000) is clearly talking about this issue when the learning activities become more advanced intellectual (cognitive) tasks and the benefits become more challenging. Shield (2000) also highlights that in fact, "learning is a personal activity. It depends upon a series of factors that are often very difficult to control and manipulate" and thus inappropriately behaviourism is most useful "for factual and rote learning". In the same vein, the learners with different learning abilities require more than just behaviourist styles of learning. In this view, Dale (2010) reports that "… people have different learning styles and one approach will not suit". He refers to his study in which he found the "disparate learning abilities"of students meant that they did not all benefit from attending lectures. As behaviourism has been shown to have limited usefulness in university settings, constructivism will be examined as possibly a more suitable approach for theorising about learning in the subsequent section.

Constructivism: In contrast to both the behaviourist approaches to learning is the constructivist approach. Constructivism as a philosophical perspective contends that individuals form or construct much of what they learn and understand. It emerged as interest declined in behaviourist theory (Liu and Matthews, 2005). Piaget and Vygotsky are major names associated with constructivism and their work on the development of the learner and the way knowledge is constructed forms the basis of this theory (Liu and Matthews, 2005).

By this, according to Liu and Matthews (2005), there are two branches of constructivism. One is cognitive constructivism, based on the work of Piaget. According to this theory constructivists in education put more emphasis on the "intrapersonal" development because knowledge is "individually and idiosyncratically constructed or discovered". Cognitive or radical constructivists consequently emphasise learner-centred and discovery-oriented learning processes" (Liu and Matthews, 2005). Liu and Matthews (2005) also criticise both behaviourist and cognitive constructivist approaches, for failing to define "the active role of the learning agent" based on individual variations and the impact of the sociocultural contexts in daily learning.

The other branch of constructivism is social (or realist) constructivism which stems from Russian psychologist Vygotsky (1980)'s research. Vygotsky (1980) "criticised the behaviourist approach as being too narrow, specialised, isolated and intrapersonal in standpoint" (as cited in Liu and Matthews, 2005). Therefore, Vygotsky gives emphasis to the central role of the social environment in learning and considers learning as "a largely situation-specific and context-bound activity" (Liu and Matthews, 2005). In this way, social constructivists argue that shared meaning occurs through social negotiation and that essential aspects of mental functioning in the individual derive from social life (Dale, 2010; Vygotsky, 1980). Consequently, various available digital technologies have been used as means for the sharing of perspectives and social communication among groups, thus the need to focus on social constructivism has grown substantially in education. Social constructivism is addressed in the next section.

SOCIAL CONSTRUCTIVISM

Vygotsky's research (1896-1934) has led to the development of social constructivism through his theory of social cognitive development. From this paradigm, learning not only occurs through the individual's cognitive processes but also through social, historical and cultural contexts (through which the knowledge was constructed). In other words, cognition (mental, language and social development) is mediated through social interaction among individual's collaboration and out of learners' unique experiences. This is because "human learning presupposes a specific social nature and a process by which children grow into the intellectual life of those around them" (Vygotsky, 1980).

Furthermore, Vygotsky also acknowledges that social aspects play an important role in understanding the role of language and communication in intellectual development. Compared to traditional learning theories, contemporary studies into social-based learning have been meeting different challenges due to the social evolution as well as the impact of networking technology. The theoriese mphasize the social nature of learning processes at an individual level such as learners' needs, motivations, perceptions, experiences and adopting more pragmatic practices (Duke, 2010; Kaptelinin and Nardi,

2006; Liu and Matthews, 2005; Salomon and Perkins, 1996). As noted by Salomon and Perkins (1996), the learning process is the ongoing development of "the learner's active engagement in assembling, extending, restoring, interpreting or in broadest terms constructing knowledge out of the raw materials of experience and provided information". Therefore, in many ways the use of social networkingtechnologies clearly support social constructivist approaches to education by deeply engaging the learners in the learning context, especially in decision making and knowledge development (Duke, 2010).

In fact, the history of educational technology is not linear; it presents significant overlapping areas but it still reflects fairly well the revolutions that took place in education as a scientific discipline over many years. The important field of research has greatly expanded from simple exercises based on fill in theblank and multiple choice exercises, educational technologies have evolved into a field that now include virtual worlds and social networking (Boruta *et al*., 2011). These theories have been selected on their relevance to the argument that the author is making for a theoretical orientation for this study. Indeed, the learning task can be personalized to the learner's skills rather than the learner having to fit in with the software designer's generalized understanding of how learning ought to occur. The creation of these rich learning technologies needs to be fully integrated to allow for and extend existing learning environments (Shield, 2000). We can clearly see the relevance that social constructivist ideals have in today's educational practices, as real-world social constructivist learning situations are more motivating to students through practical application of knowledge and as a catalyst of knowledge construction (Dale, 2010; Duke, 2010, Dunleavy *et al*., 2009). In view of that, the aim of social constructivist education is to develop ESL learners who are able to engage informally in independent thought and knowledge creation via social networking.

SOCIOCULTURAL APPROACH

As technology-based learning arises, the emerging virtual interactions between individuals ought to be investigated across suitable communal and cultural lenses. Parallel to the present advances in knowledge for worldwide collaboration many researchers are discovering prospects in Vygotsky (1980)'s sociocultural thoughts concerning learning in a communal context (Dale, 2010; Lave and Wenger, 1991; Thorne and Lantolf 2006; Wenger, 1998). According to Kaptelinin and Nardi (2006) in their book "Acting with Technology", the sociocultural approach helped shift the view of knowledge as a state, to knowing as an activity: a dynamic, intentionally and socially shared process. To be more precise the introduction of sociocultural ideas represents ideal conditions for design and development of technology based learning. Kaptelinin and Nardi (2006) acknowledge the importance of tools and technologies mediation which influence the learning activity by developing and extending what learner-users can do as they come to appropriate new technologies. This process inspires a view of learning reorganization and connection to resources, people and outcomes through the technology mediation. Moreover, the developments of more interactive technologies support learners to easily establish links and engage in collaborative activities. Such engagement is based on the capacity to link technology mediated activity to the actual contexts of cultural practice where learners negotiate shared meanings and community-building (Kaptelinin and Nardi, 2006). Taken together, the sociocultural context as an overarching dimension affects all technology-based informal learning, relationships and engagement under a great variety of circumstances through mediating technologies.

In recent years, the nature of learning and teaching in higher education has changed significantly. The evolution of social socialnetworking and educational technologies has had a substantial impact upon learners' engagement thus instructors have had to update their teaching strategies (Dale, 2010; Hernandez *et al*., 2011), Dale (2010)'s thesis examines the pedagogical framework for engaging the active learners using social networking tools. The pedagogical framework consists of three ideas drawn together that have emerged from the author's research. Firstly, various learning paradigms must be recognized when determining pedagogical strategies to engaging with educational technologies. Secondly, the thesis illuminates how the author's research on social networking-based learning technologies should embrace networked communities and learner empowerment.

Lee *et al*. (2008) confirm the value insocial networking-based education of socioculturally defined conversation, supported scaffolding and shared activity with others (including instructors, peers and community). In this sense as communication is often shaped by different tools and technologies, the authors placing responsibility for inquiry based learning and active participation on the learner such as developing their self direction, collective learning and personal learning styles. Moreover, the social constructivist principles in social networking enable community-building and the dissemination of learner-generated content. This in turn acts as a catalyst and support towards authentic, peer to

peer learning especially for "idea generation, collective problem solving and reciprocal dialogue as well as in the exchange and revision of ideas". As a consequence, learners are enabled to acquire the ability to shape their own informal learning trajectories as well as becoming actively involved with others "to scaffold cognitive behaviours and encourage collaborative discourse by establishing a shared goal, highlighting the importance of socio cognitive dynamics and emphasizing the supportive role of information and communications technology as a mediating artefact".

In a similar way, Franklin and Van Harmelen suggest that a social constructivist approach has a central concept that knowledge is constructed by learners in the context of social interaction, particularly aided by social networking tools such as Wikis and social bookmarking. A group of students may cooperate and construct an artefact in these tools and the teacher can act as a facilitator in providing scaffolding in the same Wiki. The researchers particularly note that an important aspect of the role of the learners within constructivist frameworks is to discover how they can appropriate the affordances of the social networking to mediate important learning interactions while making provisions for its limitations. This idea is matched with Salomon and Perkins (1996) view that learning is primarily centred on the types of activities that learners participate in and "the kinds of tasks they try to accomplish and the kinds of intellectual and social activity they become involved in interaction with that which computing affords". Consequently as rich and effective networks, learners can apply what they acquire, for instance, by evaluating understanding, establishing interactions (Arbaugh and Benbunan, 2007; Brown, 2006; Salomon and Perkins, 1996) and developing applications towards extended ESL knowledge.

CONCLUSION

Finally, the essential argument of this paper has been to make the case that novel and numerous kinds of informal ESL learning are occurring beyond the formal instruction system and that there is a need to research this subject. In looking at the historical examples of educational and technological-based behaviourism and constructivism practices, the researcher can begin to initiate propositions for the future of educational technology. Shield (2000) concluded that historically both behaviourist and constructivist learning theories contribute to the overall understanding of technologies based learning. But at present, social constructivist theorists asserted activity system as the value of a unit of analysis (Kaptelinin and Nardi, 2006; Thorne and Lantolf, 2006). In this view, specific circumstances of an event or activity are essential to understanding how people act in their attempt to reach their goals. In effect, because consciousness is a product of society we should explore the individual-in-social action. To conclude, the principle of situated learning community indicates that student higher order mental functioning has its roots in social relations. The mind, therefore is distributed in society and extends beyond learners' cognitive activity.

REFERENCES

Arbaugh, J.B. and R.F. Benbunan, 2007. The importance of participant interaction in online environments. Decis. Support Syst., 43: 853-865.

Boruta, S., V. Chang, C. Gutl and A. Edwards, 2011. Foreign language learning environment built on web 2.0 technologies. Proceedings of the 14th International Conference on Interactive Collaborative Learning (ICL.), September 21-23, 2011, IEEE, New York, USA., ISBN:978-1-4577-1748-2, pp: 82-88.

Brown, J.S., 2006. New learning environments for the 21st century: Exploring the edge. Change Mag. Higher learn., 38: 18-24.

Dale, C., 2010. Engaging the networked learner: Theoretical and practical issues. Ph.D Thesis, University of Wolverhampton, United Kingdom.

Duke, R.A., 2010. Students' learning experiences with the Web 2.0 Tool MyPortfolio: A case study of one high school classroom. Master's Thesis, Victoria University of Wellington, New Zealand. http://researcharchive.vuw.ac.nz/handle/10063/1302.

Dunleavy, M., C. Dede and R. Mitchell, 2009. Affordances and limitations of immersive participatory augmented reality simulations for teaching and learning. J. Sci. Educ. Technol., 18: 7-22.

Hernandez, B., T. Montaner, F.J. Sese and P. Urquizu, 2011. The role of social motivations in e-learning: How do they affect usage and success of ICT interactive tools?. Comput. Hum. Behav., 27: 2224-2232.

Kaptelinin, V. and B.A. Nardi, 2006. Acting with Technology: Activity Theory and Interaction Design. MIT Press, Cambridge, Mass, Pages: 325.

Lave, J. and E. Wenger, 1991. Situated Learning: Legitimate Peripheral Participation. Cambridge University Press, Cambridge, England, UK.

Lee, M.J., C. McLoughlin and A. Chan, 2008. Talk the talk: Learner generated podcasts as catalysts for knowledge creation. Br. J. Educ. Technol., 39: 501-521.

Liu, C.H. and R. Matthews, 2005. Vygotsky's Philosophy: Constructivism and its criticisms examined. Intern. Educ. J., 6: 386-399.

Salomon, G. and D. Perkins, 1996. Learning in Wonderland: What Do Computers Really Offer Education?. In: Technology and the Future of Schooling: Ninety-Fifth Yearbook of the National Society for the Study of Education, Stephen, K., (Ed.), University of Chicago Press, Chicago, Illinois, pp: 111-130.

Shield, G., 2000. A critical appraisal of learning technology using information and communication technologies. J. Technol. Stud., Vol. 26, 10.21061/jots.v26i1.a.11.

Skinner, B.F., 1958. Teaching machines. Science, 128: 969-977.

Thorne, J.L.S. and J.P. Lantolf, 2006. Sociocultural Theory and the Genesis of second Language Development. Oxford University Press, Oxford, UK.

Vygotsky, L.S., 1980. Mind in Society: The Development of Higher Psychological Processes. Harvard University Press, Massachusetts, US., Pages: 135.

Wenger, E., 1998. Communities of Practice: Learning, Meaning and Identity. Cambridge University Press, Cambridge, UK.