

Supporting Life-Long Learning Journeys through the Stimulation of Reflexivity in Learners: Five Complementary Perspectives

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ABSTRACT

The articles in this special issue of *Reflecting Education: Building Learning Capacity for Life* emanated from the eighteenth international Education, Learning, Styles, Individual differences Network (ELSIN) conference held in Billund, Denmark in 2013. ELSIN is the only multi-disciplinary international research organisation specifically promoting the importance of work on styles and other individual learning differences within educational and workplace contexts. The five articles comprising this special issue are representative of the broad focus of ELSIN in their coverage of a range of contexts. Participants of the present studies do not only originate from institutes in different countries (Austria, Belgium, Canada, Germany, and Ireland), but also represent diverse education levels (school students; under-postgraduates in higher education), and a variety of disciplines (e.g., accountancy; business and economics; management; multimedia and communications).

INTRODUCTION

The theme *Building capacity for life* has at its roots the concept of supporting learners' life-long learning journeys, and specifically learners' (teacher and student) development of knowledge, skills, and attributes to sustain learning beyond the immediate requirements of a particular context. Within this special issue, five different but complementary perspectives are provided on how to stimulate life-long learning. Common to all studies is their focus on how learners can be more involved in and responsible for their own learning achievements by reflecting on and thinking about their own learning and development.

Fundamental to managing the learning process is an understanding of one's beliefs about the nature of knowledge and the nature of knowing and how this impacts on one's approaches to learning and teaching. Two of the articles in this special issue specifically address this theme in their focus on epistemological beliefs, that is, teachers' and students' views about learning and teaching. Rebmann, Schlömer, Berding, and Paechter study pre-service business and economics teachers; and Brauer and Wilde look at pre-service science teachers; both these studies are situated within the German context.

Rebmann, Schlömer, Berding, and Paechter highlight the importance of alignment between teachers' epistemological beliefs, their perceptions of their students' epistemological beliefs, and the requirements of the curriculum. A key issue to explore is teachers' assumptions of their own learners' epistemological beliefs and what these are predicated on, especially

given the potential of beliefs to impact learning and teaching behaviours (Evans & Kozhevnikov, 2013). Both articles also consider the developmental nature of teachers' epistemological beliefs; an area where more research is required. As highlighted by Brauer and Wilde, it is key to consider which variables influence teachers' development of more evaluativistic epistemological beliefs (individual and contextual), and what experiences are most valuable in supporting teachers' development; the role of assessment is implicated in this. Both Rebmann et al. and Brauer and Wilde advise explicitly addressing teachers' epistemological beliefs as part of initial and continuing teacher education with Rebmann et al. emphasizing the importance of teachers identifying their own students' beliefs as a key element of their teaching practice. In addressing epistemological beliefs, it may be important to tackle these far earlier in a student's learning career given that such beliefs act as a crucial filter as to what a learner can access and use within different learning contexts.

Furthermore, in supporting life-long learning agendas, the remaining three articles take the perspective of constructivist learning environments and how these environments impact student outcomes in school and higher education contexts. Helm aims to get a better view on the merits of a specific pedagogical approach, called COoperative Open Learning (COOL), in a specific Austrian setting. The COOL approach places emphasis on supporting learner self-regulatory development through an awareness of learners' individual needs, and the importance of the relational dimension (teacher-student) in supporting the efficacy of the learning process. The COOL "bottom-up" pragmatic approach, designed to solve a specific contextual issue in the Austrian context, appears to be strongly predicated on constructivist principles (Loyens & Gijbels, 2008), despite its lack of theoretical foundation according to Helm.

To stimulate the design of constructivist learning environments, Cools, Vanderheyden, and Backhaus focus on facilitating better understanding of the process of learning through their consideration of cognitive and learning styles, motivation and achievement. Importantly, they found that cognitive and learning styles indirectly impacted on academic achievement through the mediating role of motivation. Furthermore, both intrinsic and extrinsic motivations were positively related to academic achievement. Cools et al. found some support for the matching hypothesis, in that students with particular cognitive styles did have a preference to apply learning styles that were congruent with their cognitive profile. This finding may lend further support to the integrated notion of styles, which states that cognitive and learning styles can be placed into an integrated theoretical framework comprising cognitive style families and levels of information processing (Kozhevnikov, Evans, & Kosslyn, 2014). In terms of educational implications, it is important to keep in mind that styles most appropriate to the situational demands of the task should be promoted with all learners. This implies that educators must make use of appropriate diverse learning methods, didactics, and educational interventions to ensure addressing the cognitive and learning profile of all learners.

Supporting students' development of reflective capacity as a critical component of a metacognitive approach to learning is also considered by Watts in the fifth and final article of this special issue. Watts examines the use of blogs to support students' reflective writing. Much emphasis has been placed on the role of critical reflection in enabling transformative learning (Mezirow, 1991) and in supporting students to become more self-regulatory in

learning. A key question is the extent to which technology-mediated learning and involvement in blogging, both informally and formally, can support students' development of reflective capacity. Watts highlights the value of informal use of blogs and also the fact that students report being able to learn vicariously from reading others' blogs. A key issue for educationalists is the extent to which higher level reflective activity can best be supported and whether students without specific interventions and/or more knowledgeable others can develop higher level reflection utilising Vygotsky's (1978) Zone of Proximal Development concept (ZPD). Watts also considers whether students' individual differences impact on students' reflective activities; individual differences here referring to learning styles and specifically Kolb's model.

Interestingly, some studies in this special issue led to surprising results, which we briefly highlight to conclude this editorial. For instance, Helm's analysis of the impact of COOL on students' outcomes in accountancy raises a number of issues, especially in the relationship between established pedagogical principles and the enactment of them. In line with the conclusions of earlier studies on epistemological beliefs, Helm also found that teachers' beliefs act as a filter as to how information is interpreted and utilised. Results are surprising and yet unsurprising at the same time. For example, Helm found that students' perceptions mattered, and that attending to students' prior knowledge, focusing on task analysis, and relevance were all-important in positively impacting on student learning outcomes. Whereas, unexpectedly, differentiation, scaffolding, the use of constructivist tasks, and metacognition were negatively related to student performance outcomes at class level.

A clarification for this result is obviously that the way in which these elements are combined and enacted in practice and indeed measured impacts results. For example, if the design of learning environments is modified but the modes of assessment are not, students may not see the value of specific teaching approaches. One would expect that reflection on how one goes about learning would impact positively on learning outcomes but this was not found in Helm's study. However, metacognition was measured by frequency of reflection, whereas it is the quality of reflection appropriate to the requirements of the task and the modes of assessment that may be more important in impacting on student learning outcomes. Furthermore, it is argued that COOL was initially designed to support weaker student performance; introducing constructivist approaches (problem-solving; group working; emphasis on student decision-making etc) may significantly increase the cognitive complexity of such learning environments, which may have the opposite effect on performance than that which is intended.

Finally, Watts' findings regarding learning style and reflective blog activity were surprising. Watts found students with a converging learning style demonstrated greater reflective activity in their blogging use compared to those styles which would be expected to be more reflective (i.e., diverging and assimilating learning styles). Acknowledging that the sample in this study was small, there are several observations that could be made regarding these results. For example, Kolb's model describes a process of learning, a learning cycle, so it would be erroneous to perceive that reflection was absent from active experimentation. Furthermore, as previously noted, all learners have access to a range of styles at different

levels of information processing and related to different cognitive style families, so basing patterns of learning on one style may provide misleading results (Kozhevnikov et al., 2014).

All of the articles presented in this special issue highlight the need to look beyond the immediate requirements of the curriculum in supporting learning within 21st century learning environments as part of sustainable practice with relevance to school, higher education, and workplace environments (Boud, 2000).

NOTE: Information on the ELSIN organisation can be found at:

<http://elsinnetwork.com/elsin-2015.html>

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