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Appreciation of a constructivist curriculum for learning theoretical knowledge by social work students with different kinds and levels of learning motivation

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1. Introduction

Higher professional education aims to teach students knowledge, skills and attitudes that make them competent practitioners. The greatest challenge in this task has always been to bridge the gap between theory and practice: to make sure that student build up a well-filled and well-structured knowledge base and are able to apply the resulting theoretical knowledge in their professional actions. According to Eraut (2004) learning knowledge and learning to apply knowledge in practice are different processes that both need attention. Given the limited amount of time that is available for educational programmes, there is a tension between these two processes that varies with chosen solutions. Theory-oriented programmes tend to neglect the learning process of knowledge application. Programmes that are mainly practice-oriented tend to emphasize the instrumental use of theoretical knowledge at the cost of the quality of this knowledge itself, as a

Abbreviations: NFC, need for cognition; EM-E, extrinsic motivation-external regulation; EM-I, extrinsic motivation-internal regulation.

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system of meaning on its own (Wheelahan, 2010). In the course of the last decennia, professional and vocational programmes in many countries have moved from theory-oriented towards practice-oriented. Based on constructivist learning theory various kinds of programmes were introduced such as project-based, problem-based and lately competency-based. What these programmes have in common is the use of authentic learning contexts and forms of self-directed learning, aimed at active learning and knowledge construction, in preparation for lifelong learning. Like most educational programmes constructivist programmes are developed to benefit all students, without much consideration of differences between students. This study explores differences in learning experiences of students with different kinds and amounts of motivation for learning theoretical knowledge.

2. Theoretical background

2.1. Constructivist professional education: Building up a knowledge base

In professional education students acquire the basic part of their future profession's knowledge base, as required for initial qualification. A professional knowledge base consists of several forms of knowledge: theoretical, practical, experiential, regulative and socio-cultural knowledge (Eraut, 2004; Tynjälä, 2009). Students need to integrate these forms of knowledge into an own well-structured knowledge base, which enables them to act in a competent way as a newly qualified professional. The process of professional knowledge integration and internalisation is highly personal and part of the formation of a professional identity (Daley, 2001; Dall'Alba & Barnacle, 2007). Likewise, constructivist learning theory considers knowledge as personal and context-bound, to be actively constructed by the learner in communication with others such as teachers, students, and practitioners (Ausubel, 1963; Bruner, 1966; Vygotsky, 1978). In many countries such as the United Kingdom, Australia, and South Africa, constructivist learning theory is applied in competency-based vocational and professional education to facilitate the integration of theoretical and other forms of professional knowledge and to prepare students for active, self-directed lifelong learning (Wheelahan, 2010). Throughout a constructivist programme, integrated learning of knowledge, skills and attitudes is stimulated by using authentic learning contexts (Lave, 2009; Lave & Wenger, 1991; Van Merriënboer, 1997). Authentic professional tasks are designed to invoke active inquiry, problem solving and social interactions in real life or lifelike circumstances (Bruner, 1966; Spiro & DeSchryver, 2009; Vygotsky, 1978). Theoretical lectures and skills trainings are planned *just-in-time*, when relevant for the task at hand (Van Merriënboer, 1997). Active knowledge building is stimulated by teaching students how to reflect on and subsequently regulate their own learning (Bereiter, 2002; Simons, Van der Linden, & Duffy, 2000; Spiro & DeSchryver, 2009). Progress towards self-directed learning is supported by an increasing degree of freedom in task planning, execution and evaluation and by expanding opportunities for choosing specialisations (Vermunt & Verschaffel, 2000).

2.2. Assumed negative effects on theoretical knowledge learning

Constructivist, and especially competency-based programmes are criticised for their assumed negative effects on learning theoretical knowledge. A first critique is that using authentic contexts lays too much emphasis on *instrumental knowledge*: isolated chunks of theoretical knowledge for direct application in specific daily practice contexts (Wheelahan, 2010). In a competency-based programme, the emphasis on instrumental knowledge is reinforced by offering theoretical lectures just-in-time and by integrated testing of knowledge, skills and attitudes in professional task execution and products. At bachelor's level, however, a professional must also be able to rise above daily activities for critically examination and improvement of practice (Edwards, 1998). Wheelahan (2010) argues that the theoretical knowledge required for that purpose should in itself be a coherent, well-structured *system of meaning*. Such knowledge enables one to search for alternative perspectives, to ask deeper questions, to seek more elaborate explanations and find new solutions. It also provides formal language to discuss professional knowledge itself with colleagues and other professions and thus contribute to the development of the profession's knowledge base (Ball, 2008; Edwards, 1998; Maton & Moore, 2010; Wheelahan, 2010). Learning knowledge as a system of meaning in itself requires that an educational programme pays explicit attention to the internal structure within academic disciplinary knowledge and to connections between knowledge from various disciplines. Such attention is missed in competency-based programmes that accentuate an integrated, instrumental way of learning theoretical knowledge in authentic context. A second critique on constructivist learning theory states that self-directed learning is *too difficult* and thus *inefficient* for learning theoretical knowledge. In competency-based programmes, students are stimulated to actively seek answers by themselves. Teachers do not provide ready-made answers, but support students to find answers themselves. Kirschner, Sweller, and Clark (2006) state that to avoid cognitive overload, students need *direct instruction* of knowledge instead of building their own knowledge. According to Laurillard (2002) interactive discourse between teacher and students is indispensable for tracing students prior (mis)conceptions, and to help them make abstractions to general concepts, which are transferable to multiple contexts. Tobias and Duffy (2009) state that both critiques are only partially underpinned by empirical findings. Direct-instruction research was directed at domains with well-structured and well-defined abstract knowledge bases such as science and mathematics and not for ill-defined domains like social work, counselling, or teaching. And although elements of constructivist learning such as situated, active and cooperative learning are well researched, empirical findings on learning knowledge in constructivist programmes in real life settings are still lacking. Discussions about constructivist education often consist of generic statements on its benefits and