

his own learning’, ‘facilitation of individual, social, child, adult, learning’, ‘evidence-based education’, etc. Parallel to these changes in education and learning, and in the net of social relations, a variety of theories of learning have evolved. The field of research on learning has become very complex, with different foci, founders and proponents, schools, and disciplinary approaches (Qvortrup & Wiberg 2013). Thus, the phenomenon of learning as it appears today is manifold. It has emerged as an evolving object, with multiple connections to various disciplines of research and fields of interest. Within the multi-faceted landscape of theories and definitions of learning, there exists no general agreement on what learning really is, or on what is demanded of a definition of learning. Some proponents of theories of learning tend to advocate their own viewpoint and to consider learning theories as mutually exclusive and therefore incompatible. Some try to unify the field of learning into one comprehensive theory of learning (Illeris, 2006; Jarvis, 2006), while others claim to focus on particular aspects of learning (e.g. creative learning), on places for learning (e.g. workplace learning), or on perspectives on learning (e.g. individual, social, child, adult, organizational learning). This indicates that learning cannot be defined once and for all. Instead, the field must be considered as a collection of perspectives on and conceptualizations of learning. Conceptualizations of learning often base themselves on particular metaphors, such as learning as ‘acquisition’, ‘participation’ and/or ‘knowledge creation’ (Sfard 1998, Qvortrup & Wiberg, 2013). Furthermore, different conceptualizations of learning often imply different and definite assumptions about the relationships of subject and object, individuality and context, inside and outside, thinking and action, cognition and body, and knowledge and practice. Thus, it is important to be sensitive to the variety of concepts and theories of learning in the field, and to continue to cultivate that variety. However, currently there doesn’t seem to be a way to locate theories of learning within a unified field of research, where concepts of learning are thoroughly and systematically discussed across the field. There seems to be a lack of mutual discussion and inspiration among the different fields, interests and positions. As a consequence, the development of strong theory of building is inhibited.

An important aspect involved in building a strong field of learning theory is to clarify how learning concepts and theories can prove useful in relation to different contexts, interests, problems and situations. This aspect can be judged in terms of whether it is ‘viable’ (von Glasersfeld, 1996), ‘operationally useful’ (von Foerster, 1984) or if it takes the form of ‘ideas as plans of operations to be performed’ (Dewey, [1929]1990) or of ‘instruments of finding one’s way around’ (Terhart, 2003). Any concept of learning must be considered in the light of the empirical studies it is based on, and the various definitions and conceptualizations of learning it adheres to. One difficulty, therefore, involves coming to terms with constantly changing definitions of learning; another relates to the question of how to move from learning, learning objectives and learning theory to educational settings, teaching strategies and teaching theories. Learning theories help us to understand learning as a phenomenon, but they do not reflect upon what, how and why something should be taught and learned in education (Qvortrup & Keiding 2016). However, some researchers claim that a theory of teaching includes both a theory

student learning and a theory of teacher behavior (Hattie, 2009; Terhart, 2011). Biggs and Tang (2007) call for a focus on 'constructive alignment' between teaching activities, learning objectives, and different students' learning through participation. But this is no simple matter, and often the attempts to establish connections between theoretical concepts of learning and teaching are based on educational designs attached to particular views of knowledge and learning. Examples of this can be found in some (social) constructivist theories of teaching activities, which take their point of departure in the view of knowledge and learning as always socially situated, and as arising from collective and personal constructions (Lave & Wenger 1991; Wenger 1998). Manifold teaching or pedagogical patterns (Laurillard, 2012), such as student-orientated inquiry teaching, problem-based teaching, cooperative learning, and computer-supported collaborative teaching, have been conceived and referred to as if they inherently belong to particular social constructivist notions of knowledge and learning. Several of these attempts tend to focus on the teachers' proactive efforts to design teaching activities that facilitate students' learning through encouraging individual and collaborative/cooperative efforts to construct knowledge (Qvortrup & Keiding, 2015a; Hattie, 2009, p. 26, Cobb, 2007, p. 5). The problem with many of these approaches seems to be that the alleged interdependence