his own learning', 'facilitation of 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 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 of 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