

Situated Readiness and Transformation of Learning Across Situations and Settings

Roland Hachmann, Department of Research, UC SYD, rhac@ucsyd.dk

Abstract

This short paper introduces the concept of Situated Readiness as a set of skills and dispositions required to participate meaningfully across settings and situations, seeing them as networked and intertwined. Following earlier work within the field, networked learning is here understood as learners' connecting of contexts in which they participate, and as their resituation of knowledge and ways of acting across these contexts (Dohn, 2014). The development of the concept of Situated Readiness is based on a conducted study using a Design-Based Research (DBR) approach to investigate, how student teachers at a Danish Teacher Education Program (TEP) transformed knowledge and ways of participation when transitioning between a course and a public-school class. The findings of the study indicate the needs of socio-epistemic skills and dispositions that enable students to resituate, utilise and transform knowledge from known social contexts to new ones e.g. from a learning situation at the TEP to novel situations in school. Situated Readiness is, in this sense, the ability to attune to the specific social and epistemic requirements and demands, also termed "requirement characteristics", pertaining in these new contexts. To aid the analysis of the skills needed to engage in networked situations, an analytical framework of context levels is presented. The framework points out how requirement characteristics at three interacting levels are posed on the learner. The three levels: 1) the life-setting, 2) the activity-internal level and 3) the domain-internal level form a complex whole and as a learner acting competently in a situation, consists of the ability to respond accordingly to this complex whole. The findings of the DBR study points at challenges towards students' transformation of knowledge between the two settings, suggesting that the development of Situated Readiness on the learners behalf requires educators to design for learning opportunities, that take into account, how settings and situations are networked and that students are given opportunities and support to recognise these temporally connections as part of their learning trajectories. The lack of explicit articulation of the sameness and differences between the setting leaves the students to realize and attune to these by themselves, which the study shows, is a major challenge to students, who have limited experiences with teaching in practice.

Keywords

Networked Learning, Transfer, Transformation of knowledge, Situated Learning, Teacher Education, Agency, Learning opportunities, Transitions between work and school.

Research Context

The paper builds on findings from a conducted Design-Based Research study (Cobb, Confrey, diSessa, Lehrer, & Schauble, 2003; Collins, 1992) investigating how students within a specific Danish Course, Verbal Skills and Communication, at a Teacher Education Program (TEP) in Denmark, transformed knowledge and ways of participation, when transitioning (Beach, 2003) between the course setting and a classroom setting in local a public school. A learning design, inspired by Engle's research on expansive framing (Engle, 2006), was developed and implemented in collaboration with teachers at the TEP and School. Engle documents that the teacher's articulation of the relevance towards content and processes, beyond the learning situation itself, can foster student's expectation towards the usefulness of what they learn, thereby bridging the learning and the transfer contexts. The learning design required students, in groups, to plan, teach and evaluate a lesson of 90 min. where they experimented with the topics and content of the course. The study underwent two iterations with two consecutive classes at the TEP, with the primary school class being the same through both iterations, but in their years 5 and 6, respectively. Data was collected and through video supported classroom observations (Hansen & Carlsen, 2017) in both the course setting and at school. Group interviews (Kvale & Brinkmann, 2014) were held after each visit at the school. Further, the teaching plans developed by the student teachers were made available for analysis.

Findings of the study

Findings of the study show that student teachers transfer propositional knowledge of curricular content, transforming and resituating this knowledge through adapting their academic terminology, through the use of tools and artefacts (Wertsch, 1998; Goodyear, Carvalho & Dohn, 2016), including PowerPoints, video, audio and digital teaching platforms. They also utilize activities introduced in the TEP course, as activities in the primary school class. This requires them to transfer practical skills in conducting the activities and to transform their actions from those of participants in activities to those of persons orchestrating activities for others. This involves transforming and resituating patterns of participation (Greeno & Gresalfi, 2008) in learning activities between the TEP and the primary school class. The findings of the study further indicate the needs of a set of socio-epistemic skills and dispositions that enables students to resituate, utilise and transform knowledge from known social contexts to new ones e.g. from a learning situation at the TEP to novel situations in a school.

Situated Readiness

The concept of Situated Readiness (Hachmann & Dohn, 2018) relies on a view of networked learning, that sees learning not as limited to one situation or resource but as a result of many previous situations and their impact on how the individual's knowledge, understanding of and participation in new learning settings transform. In this sense, former and present situations are networked for the individual and the strength of the connections between the situations will be significant in how difficult it is for the learner to meet the requirement of a given situation.

Theoretical outset

The theoretical outset is a sociocultural understanding of knowledge as situated and context-dependent (Greeno, 1997; Lave & Wenger, 1991; Säljö, 2000) and socially mediated in practice (Rogoff, 1990). Transfer is accordingly conceptualized as transformation of "acts of knowing" (Greeno, 1997) from one holistic unity of situational demands and possibilities to another, where each unity is concretely negotiated between participants in the situation. From this situated sociocultural perspective, participation in educational activities requires students to develop and utilize a set of socio-epistemic skills and dispositions, that enables them to transfer, resituate and transform knowledge and participation across situations and activities. Situated Readiness is the attunement to specific requirement characteristics pertaining in these new situations and relies on negotiating socio-epistemic positions and engaging in content, following Greeno's dual concepts of systemic and semantic positioning (Greeno, 2011). In this view patterns of participation and dispositions are results of continuous negotiations of what (varying) degrees of authority, accountability, and skills each participant has, when engaging in a specific learning context and how they are able to respond to the situational demands.

Framework for analysing context levels

To recognize the requirement characteristics of a given situation an analytical "framework of contextual levels" first developed by Dohn (2017) can be of help. The framework has shown useful in specifically investigating student teachers' transformations of knowledge between the TEP and a classroom setting in a public school (Hachmann & Dohn, 2018; Dohn & Hachmann, 2020). The framework points out how requirement characteristics at three interacting levels are posed on the learner:

- 1 The life-setting level is concerned with the "real-life" context of activities e.g. participating in an educational program.
- 2 The activity-internal level is concerned with the activity itself e.g. planning a lesson, solving a problem or teaching a specific topic.
- 3 The domain-internal level concerns with the domain e.g. pedagogical theory or subject-specific knowledge and strategies.

The three levels form a complex whole, and as a student teacher acting competently in a situation consists of the ability to respond accordingly to this complex whole. While the framework is able to deal with a very wide range of learning situations, this paper presents only some issues which are of particular importance to learning within teacher educational settings that implement collateral transitions between education and workplace. As shown in figure 1 below, Situated Readiness involves resituation and transformation of knowledge and activities, and negotiation of socio-epistemic positions in both settings at the three context levels:

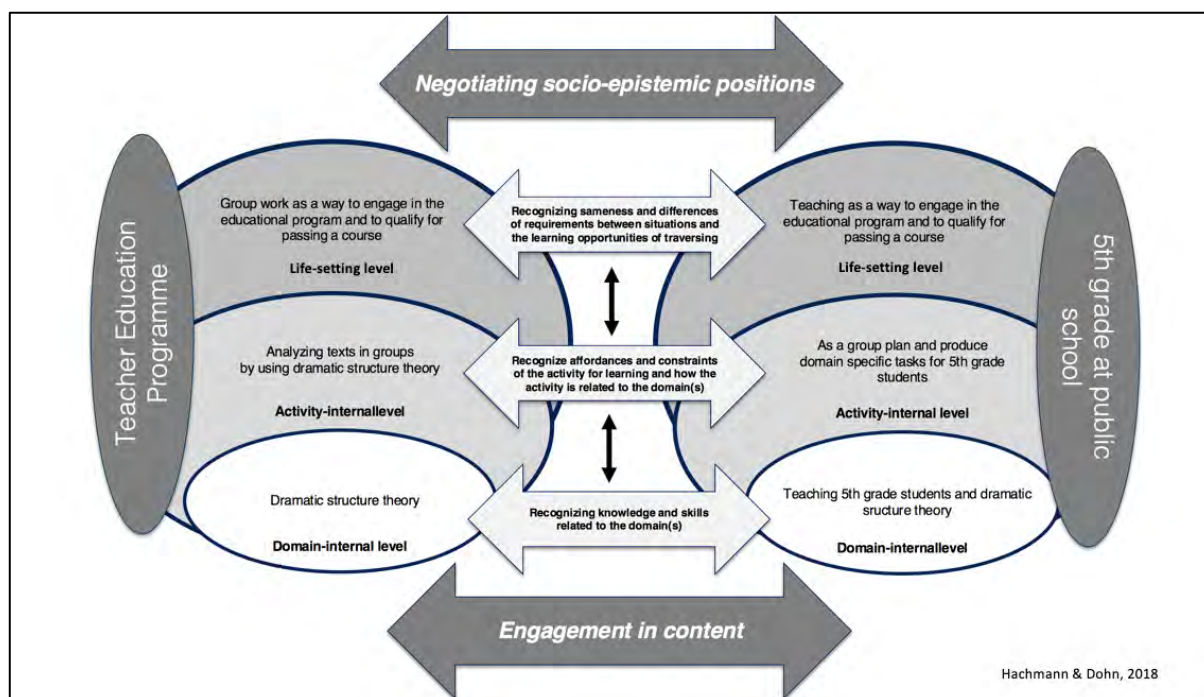


Figure 1: An example traversing between the TEP and the classroom in public school.

Situated readiness at the life-setting level

Meeting requirement characteristics at this level is related to the teacher students' abilities to recognize – if not explicitly, then at least implicitly in their actions – both the contextual differences between the public school and the TEP and also their relatedness. Situated readiness at the life-setting level entails dispositions to recognize, attune to and challenge how frameworks provide structures, norms, roles and cultural beliefs, and how they afford specific activities. Furthermore, situated readiness at this level involves the ability to see analytically how frameworks and situations differ in terms of settings that one traverses between.

Situated readiness at the activity-internal level

Meeting requirement characteristics at this level is related to the teacher students' dispositions and skills enabling them to engage in activities within different life-settings.

Situated readiness at the activity-internal level entails dispositions to recognize the affordances and constraints of the activity, thereby transforming and resituating patterns of participation and participatory identities from previous activities. Participating in activities have both cognitive and practical aspects and depends on what the learners already know from past experience and learning situations involving similar activities.

Situated readiness at the domain-internal level

Meeting requirement characteristics at this level is related to the teacher students' content knowledge and skills to perform specific actions. Situated readiness at the domain-internal level entails dispositions for recognizing the specific knowledge and skills needed for engaging in content that is aligned with the requirements of the domain itself. It also entails dispositions for recognizing how different domains have requirements that differ or can contribute across activities in ways which are not determined solely by the activities but are also sensitive to the life-setting level.

Concluding remarks

This short paper aimed to introduce the concept of Situated Readiness as a set of skills and dispositions required to participate meaningfully across settings and situations, seeing them as networked and intertwined.

From this view transfer, transformation and resituation focus on how student teacher's dispositions to engage and interact with others play out, as part of collateral transitions between the TEP and a class of pupils. The transitioning between the TEP and School is not an easy feat. The study shows clear examples of transfer at the domain and activity levels, as well as indicating the need for transformation of the knowledge involved for the student teachers. The study shows, that in some situations recognising similarities seemed easy, and in others

very hard. Following the student teachers' movements between the two settings reveals, that they were challenged in justifying their choices and transformation of the subject matter between the two contexts. Due to the differences in the requirement characteristics of the life-setting, they needed far more guidance from the teacher to see, the connections between the activities the TEP and the ones they taught in school. A consideration here is that the student teachers are, of course, inexperienced as teachers so they cannot be expected to be able to see and respond to all situational demands, let alone justify all their actions reflectively and soundly. The concept of Situated Readiness and the framework presented can help analyse the skills needed to attune to the requirements of new situations and illuminate, what goes wrong if such attunement is not attained. Likewise, it can be of use for educators designing for learning opportunities, that involve transitions between networked settings and situations, highlighting the need for explicitly framing the sameness and differences between them.

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