COLLECTIVE ACTIVITIES? AGENCY IN TEACHING SITUATIONS

Anna-Mia Bergkvist, Södertörn University, annamia.bergkvist@sh.se
Helena Eriksson, Stockholm University, helena.eriksson@mnd.su.se

This is an unpublished text

Introduction
As society worldwide is changing, the school system needs to adapt teaching and take responsibility of creating an environment for educating citizens of today and tomorrow (Engeström, 1987; Leontiev, 1978). These citizens are meant to take responsibility for the values in society. The students’ compulsory education and the teachers’ professional knowledge must be correlated with these challenges in society (Swedish Ministry of Education, SFS 2010:800). With that follows, the importance of professional teachers and teacher education that serves the whole education system with relevant competence. Goals for teaching in the compulsory school are described in national curricula, that teachers are expected to make possible for the students to achieve. Teaching is defined as “goal-directed processes that, under the guidance of a teacher or a preschool teacher, are aimed at the development and learning through the acquisition and development of knowledge and values” (Swedish Ministry of Education, SFS 2010:800). Compulsory education in Sweden is evaluated through the Swedish Schools Inspectorate Ministry (Skolinspektionen). Their revisions are aimed at helping to engender good education in safe environments. The organisations that receive remarks are often schools with a low proportion of educated and qualified teachers (Swedish Schools Inspectorate, 2018). Becoming a qualified teacher is achieved through studies at the universities’ different programs and courses which lead to a teaching degree intended to provide the qualifications needed to work as a teacher within different subject areas, with different age groups and in a variety of educational organisations. Furthermore, during 2018-2019,
the Swedish Higher Education Authority (UKÄ) evaluated 67 Teacher Education Programs, the Teacher Education Programs for pre-School teachers and Primary School teachers at 18 universities in Sweden. The result of the evaluation shows questioned quality in almost half of the 67 programs that was evaluated. The critique concerns, as for example, not having a research environment genuinely connected with and within the programs as well as having too many different teachers at the universities involved in the teaching. This is argued to make it hard to build a common ground and make the program hold together (Swedish Higher Education Authority, 2019).

As can be seen from these reports, the quality in compulsory school depends on qualified teachers, and their teacher education. Thus, there are ongoing national evaluations and discussions about teacher education as well as education in compulsory school. In our opinion it seems that the focus of these discussions increases the level of monitoring and scrutinizing school organisations (Swedish Schools Inspectorate, 2018; Swedish Higher Education Authority, 2019) but risk missing out discussions including the educational core issues from the practice. Therefore, a question to raise is if these discussions are motivated by the practitioners or if they just fulfill the function of a control system? Concerning the quality of teaching, issues remain regarding education in compulsory school and who is formulating the questions regarding these problems (Carlgren, 2015, 2017; Eriksson, Lindberg, & Österlind, 2010).

With this in mind, in this paper, we want to challenge local teaching traditions and collective practices by combining two different design studies focusing on education, conducted in the same multicultural municipality-run Primary School in Sweden. The common aim of the current study, grounded in the two studies, is to explore possibilities for students and teachers collective learning activities concerning (motivated by) the development of education as well as teaching of specific concepts. This aim is formulated in the text through our research question; What in educational practices can be seen as possibilities for students and teachers’ actions (learning actions) related to their activity? Through this study, we want to start a process arguing that issues regarding young students’ education in Compulsory School must be further discussed and enlightened through four cornerstones such as; becoming a teacher, being a teacher, developing as a teacher and educating new teachers.

**Background**

As a background we shortly present the two included studies and give a theoretical standpoint of each study. Both studies share common interests in challenging practices
within the same multicultural municipality-run Primary school in Sweden. The first study was focusing on students’ joint activities, challenging young student’s possibilities to develop theoretical concepts conducted by the theoretical framework of learning activity (c.f. Davydov, 2008). The other study was focusing on the teachers’ professional collaborative work, challenging teacher’s cooperation, conducted by the perspectives of practical knowledge (Hjertström Lappalainen, 2015) and activity theory (Leontiev, 1978).

The first study explores tentative learning activities when mathematical concepts are jointly enhanced between a teacher and students. A learning activity is aimed at students’ development of theoretical thinking related to concepts of historical-cultural traditions in different school subjects (Davydov, 2008). Such activity can develop when the students are engaged to solve genuine problems designed to contain the theoretical concepts in focus. A learning activity is always jointly executed, where the teacher and students work together. To solve the problems in such activity, the students and the teacher use subject-specific tools developed as learning models, in actions manifested as learning actions (ibid.). Such learning actions are object-oriented and always focused on formulating a problem, identifying transformations of concepts by constructing learning models to reflect on relationships within concepts (Davydov, 2008). Such reflections can be developed, also by younger students (Zuckerman, 2004). Reflection includes thinking about one's own actions and thoughts related to a theoretical concept, taking other individuals’ point of view and understand one's limits. Data consists of transcripts from research lessons documented by film and notes. Here, teachers, students and a researcher are involved to explore specific details of different mathematical concepts. The teachers are trying to understand how to teach with the aim to give possibilities for all students to act as agents when enhancing understanding of the specific theoretical concepts. The activities were designed in detail and developed through structural interventions in a cycle of research lessons (cf. Carlgren, 2017).

The other study examines whether teachers’ professional knowledge could be understood as a collective practical knowledge, and if so, in what way this knowledge is expressed and understood. Within the theory of practical knowledge, the relationship between different forms of knowledge in interpersonal professions is examined (Hjertström Lappalainen, 2015). One attempts to broaden the traditional epistemologically anchored view of knowledge as primarily theoretical by bringing it together with people's practical knowledge. One of the methodological prerequisites is to provide space for individual practitioners' descriptions of their professional practice in
order to emphasize and formulate practical knowledge and its relation to theoretical concepts related to different forms of professional knowledge. Josefson (1998) argues that professional practices depend on a fruitful meeting between practical and theoretical knowledge traditions. Starting from Aristotle’s distinction of different forms of knowledge researchers in the theory of practical knowledge have argued that even complex practical forms of knowledge are possible to conceptualize and problematize (Alsterdal, 2011; Hjertström Lappalainen, 2015; Josefson, 1998).

As the other study examines whether, and if so how, teachers’ professional knowledge could be understood as a collective capability, the project combines philosophical investigations of the concept of collective phronesis with a study in collaboration with professionals in primary schools. The study examines the actual appearances of collective phronesis from within the professional field of teaching. How do teachers think and act concerning dilemmas in their work, when and how do they need each other, and what can affect the possibilities? With the aim to get closer to the specific work field of the teachers included in the project, observations were made as a starting point for further discussion in focus groups. The discussions focused on the teachers’ and the researcher’s experiences and views of concepts such as collectivity, responsibility and dilemmas in the classrooms.

Previous research shows that there is an awareness that professional practice often requires more than one person and that professions are collectively designed often in teams learning activity (Engeström, 1987, 2008).

**Theoretical concepts in the current study**


In activity theory, activity is always directed towards an object. Activities are always situated as internal processes of thoughts and external processes of actions. What can be analysed are the actions, because “the basic ‘components’ of separate human activities are the actions that realize them” (Leontiev, 1978, p.6). Therefore, an activity becomes visual and possible to explore through the actions realizing the specific activity. "Hence actions are not separate things that are included in the activity. Human activity exists as an action or a chain of actions." (Leontiev, 1978, p.7). Thus, actions are the processes which achieve conscious goals. They do not occur in empty spaces by themselves, they are situated and related to already known contexts; using Leontievs
terminology named “operations”. Following that, in the process of an activity forming human life Leontiev explained:

human life in its highest manifestation (those that are mediated by mental reflection), analysis first identifies separate activities, according to the criterion of the difference in their motives. Then the action processes obeying conscious goals are identified, and finally the operations that immediately depend on the conditions for the attainment of a specific goal. (Leontiev, 1978, p.8).

A special form of activity theory is learning activity focusing specifically on educational contexts developed by El’konin and Davydov (Engeström, 1987). In this context learning activity is aimed at students’ development of theoretical thinking and thus the mastering of scientific concepts, it is a specially-organised and structured collective interaction between teachers and students (Davydov, 2008). To highlight some issues that can describe the differences between traditional teaching versus teaching developed as learning activity, also named “humanistic and developmental teaching”, Repkin (2003) explains the “laws that underlie the process of learning, to analyse the structure, content, and genesis of learning activity as a special form of human activeness” (Repkin, 2003, p.13). In these laws, the structure of a learning activity always starts with formulating a common problem containing the object that is in focus for the activity (Repkin, 2003). Following that, the learning activity can be understood as the constitutions of the activity through the actions when dealing with this problem. The problem always contains the content in focus for the activity and is dealt with through the circumstances and the prerequisites at hand (Engeström, 1987; Repkin, 2003). Consequently, the content embedded in the problem and the actions manifesting the problem are intertwined with each other and with the activity focusing on the same object. Identifying these actions and analysing what these actions are directed towards may, therefore, be helpful to analyse the activity, and out of that understand what possibilities that are given to the participants (Repkin, 2003).

Further, Repkin (2003) discusses the manifestation of content embedded in the problem. Content connected to this context can be discussed as different forms of knowledge. The concept of knowledge can, as Aristotle describes in The Nicomachean Ethics (Aristotle, 1988/2018; Nilsson, 2015), be seen as a spectrum of perspectives, here described in the three different forms episteme, techne and phronesis. The scientific form
of knowledge that cannot be interpreted in other ways, is by Aristotle defined as episteme, and represents theoretical knowledge. Further, Aristotle describes two different forms of practical knowledge; techne as a form of technical skill or methods and phronesis as a form of practical wisdom and capability of judgement.

In a learning activity, the genesis of learning and the genesis of activity can be explained as if goals and results are connected to the changes of the participants as agents in the activities (Repkin, 2003). The level of intellectual development is only possible to the same degree as the agency in the activity, the concept of activity and the concept of the agent are closely interconnected to each other (Repkin, 2003). In activity theory and in learning activity theory, agency is seen as an ability, possible to develop through learning activities. Actions that are related to agency are object-oriented actions such as reflections (Davydov, Slobodchikov, & Tsuckerman, 2003; Repkin, 2003; Zuckerman, 2004). Different spheres of reflections give different opportunities for being the agent in the change of the mind of one-self. Three spheres are explained as; thinking direct toward solving tasks, being aware of the foundation of one owns actions and finally being able to bring about a partner’s mutual understanding and develop self-awareness (Davydov, Slobodchikov, & Tsuckerman, 2003).

Methods
Here, a short presentation regarding the method of the analyses. For the current study, we used notes from observations as well as transcripts from lessons with students and focus groups of teachers from the two different studies as data. The analyses of this common study are done in different steps. In the first step, we have used Repkin’s laws with the key concepts structure, content and genesis (Repkin, 2003). These key concepts are used as a way to organize the first analysis of our data, because “each of these problems is relatively independent, but at the same time they are all interconnected” (Repkin, 2003, p.13). Combined with the structures in this law, we use Leontiev’s analysis of human activities in terms of activities, actions, and operations (Leontiev, 1978). To understand the aspect of content from the law of human activity we used the concepts describing different forms of knowledge as episteme, techne and phronesis (Aristoteles, 1988/2018). To further analyze the genesis of the activities we used the different spheres of reflections described by Davydov et al (2003). They describe reflections directed to the tasks, oneself, and we together.

The next step of our analyses was to explain the situations and analyse them with the help of our conceptual framework. This was done as examples found in transcripts
from research-lessons, observations and focus groups discussions, and presented in the result chapter below.

**Tentative results**

Connected to our issue and research question we present some tentative results in Table 1. Below this table, we provide some details with situated examples from the data. In the first column, we present the structure, content and genesis seen as the concepts of law related to learning activity. In the second and third column, we present results from the two studies.

**Table 1.**

The results in relation to the key-words: structure, content, genesis

<table>
<thead>
<tr>
<th>Structure</th>
<th>Study 1</th>
<th>Study 2</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Activity</strong></td>
<td>Tentative learning activity concerning mathematical concepts in which students expect to reflect in different ways on the concepts.</td>
<td>Tentative activities regarding teachers’ possibility to reflect upon their teaching and understanding of their mission described in the curriculum.</td>
</tr>
<tr>
<td><strong>Actions</strong></td>
<td>Identifying the problem in the task. Developing “learning models” to make it possible to reflect on/deal with theoretical concepts.</td>
<td>Teachers actions in the classrooms and in meetings. Exploration of the experience as dealing with issues concerning teaching in the situated practice as reaching the goals in the curriculum.</td>
</tr>
<tr>
<td><strong>Operations</strong></td>
<td>Tools used, and challenges of the teaching traditions.</td>
<td>Spontaneous meetings in different situations among different professions.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Content</th>
<th>Study 1</th>
<th>Study 2</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Episteme</strong></td>
<td>Historically developed (mathematical) phenomena and relations between concepts.</td>
<td>Historically and culturally developed expectations, socially expressed in national or local regulations (about teaching).</td>
</tr>
<tr>
<td><strong>Techne</strong></td>
<td>Developing learning models of (mathematical) concepts regarding theoretical knowledge.</td>
<td>The cooperation, the organising, the designing of (teaching) models.</td>
</tr>
<tr>
<td><strong>Phronesis</strong></td>
<td>Reasoning using (mathematical) concepts according to cultural-historical traditions.</td>
<td>Reasoning about dilemmas regarding the profession (as a teacher).</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Genesis</th>
<th>Study 1</th>
<th>Study 2</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Task oriented</strong></td>
<td>The students answer.</td>
<td>Scheduled daily planned teaching, meetings in settled structures.</td>
</tr>
<tr>
<td><strong>Oneself</strong></td>
<td>Students verbally tell their own solutions.</td>
<td>What/who can help me in this teaching-situation, what/how did I learn in the teacher education.</td>
</tr>
<tr>
<td><strong>We together</strong></td>
<td>Teaching traditions including the jointly development of learning models using subject specific tools.</td>
<td>Educational traditions including teachers need of each other’s perspectives for handling dilemmas in teaching.</td>
</tr>
</tbody>
</table>
As to be seen in Table 1, the key-word structure, from the laws of learning activity, enable us to discern the different levels of human activity. Grounding these results from study one is the observations that the activity just sometimes is developed as possibilities for students’ development. Examples from study one tells us that when teachers give too many solutions and too much empty credit, such as just “- Good”, instead of feedback rich in content, the possibilities for the students to reflect on theoretical concepts disappeared. Situations when the students are constructing models for theoretical concepts and discuss these models together with the teacher and their classmates can be contrasted with these implications. Here, the possibilities for reflections, of for example length models for quantities, can be seen to emerge. At the same time from study two, we discern that factors such as time and well-planned meetings focusing on what really concern issues experienced in teaching is of importance for what kind of learning activities that can be organised. Examples from study two show that providing tutorial of teaching is hard as it is easy to talk about challenges in teaching but difficult to implement. An example of this is one teacher explaining a situation of getting supervising grounded in dilemmas in the classroom that the teacher finds hard to put through. Spontaneous meetings in spaces of room between different professions in the school come often to pass as solving acute situations and dilemmas.

Also presented in Table 1, regarding the key concept of content, we found that detailed subject-related knowledge as well as the teachers knowledge, sometimes tacit, is to relate to different forms of knowledge. In our table, we present students and teachers’ epistemic knowledge as relations between concepts, the content of the subject and the curricula. Further, we identify signs of students’ and teachers’ knowledge seen as techne, that is needed for how to do and what way to do, for example ability to develop and using different models, methods and forms of cooperation. The third form of knowledge here seen as phronesis, can be understood as making standpoints and judgement in the situations, different views and opinions become visible through the individual and common experiences. As human activities are grounded in the cultural-historical context this makes an impact on the young students’ use of mathematic concepts and way of thinking and acting as well as on teachers’ understanding and implementation of their teaching.

Regarding the genesis of learning activities, we conclude that different levels of reflections on human actions are to be organized. The young students seem to manage this when they act on models including symbols and graphical models possible to
visualise something specific, i.e. theoretical concepts. Also, influencing these reflections are the students’ gestures with their hands and bodies, in joint discussions to argue for their models as a means to start off what you intend to do together. Regarding study two, the newly trained teachers reflected by themselves upon their own proficiency and the professional practice also related to their former teacher education; it was important to have contact with the field of school practice while they were studying. They also reflected together on issues where they really needed each other finding solutions or different ways of thinking concerning dilemmas, such as difficult conversations with parents, how to organize teaching, conflict management etc.

**Discussion**

Concerning education, questions still remain and need to be addressed, of what has to be identified as specifically important regarding young students’ education (Carlgren, 2015, 2017; Eriksson, Lindberg, & Österlind, 2010). In line with these researchers, we argue that issues have to be further discussed and enlightened. We argue that this can be done through our suggested conceptual framework focusing on teaching and learning as collective activities that relate to interplay with different forms of knowledge. We have to go on discussing, and especially go on with the discussion as teachers and teacher educators. So, to come further with these issues we have to find structures, content and genesis in what to discuss. According to the framework developed in our analysis, we come to discuss specific contents to find what genesis of an activity that enables students and teachers’ agency for these questions regarding education (cf. Repkin, 2003). To understand agency in this context of developmental teaching the participants agency could be seen as collective directed towards a common motive. We think these laws of human activity, here learning activity, can help us to give the direction of agency. These laws also enlighten and reveal dilemmas regarding teaching and education.

From one study, we know that results indicating situations and tasks play a role and how teachers make it possible for students to reflect on subject-specific theoretical concepts. Traditional education (cf Repkin, 2003) was challenged when the teacher tried not to give all the answers. The traditional way of talking in the classroom, as well as the traditional content, was focused on in these challenging lessons. From the other study, we have results indicating how teachers can glance back to their own education and student teaching periods (the teacher education staged in a classroom supervised by the ordinary teacher)- of becoming a teacher, how teachers work together and are able to use joint knowledge of teaching situations, how to share experiences and knowledge with each
other, in different situations and challenges but also in the current ongoing work. Thus, we have the combination of examining something very specific subject related and something very specific related to common proficiency in teacher practice. Altogether, the different designs of the studies focusing on the object of teaching/learning versus the collaborative form of working as a teacher, implicate that different aspects of teaching become visible.

This seems like a matter of course but as we can discern from our common data and our arguments in the introduction this must be highlighted in the ongoing work as becoming a teacher, being a teacher, enhancing possibilities as a teacher and educating new teachers. There are rooted traditions and cultures of how to do things and space for relevant reflections and meetings is not always prioritized or in focus. “An activity may lose the motive that evoked it” (Leontiev, 1978). If the actions are not object-oriented, the activity becomes different, the actions can turn to independent motives. It seems as actions in the lessons, as well as in the teachers’ professional work, need to focus on reflections on the specific object, as well as on one owns reflections and trying to understand classmates and colleagues’ way of thinking.

References


