



Martin Kramer

TEACHERS' AGENCY IN SCHOOL DEVELOPMENT

School reform as an expansive learning process

CRADLE

Center for Research on Activity, Development and Learning

Working papers 1/2013

University of Helsinki
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Helsinki 2013

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Unigrafia, Helsinki

ISBN 978-952-10-8212-2 (pbk)

ISBN 978-952-10-8213-9 (pdf)

ISSN-L 1798-3118

ISSN 1798-3118

CONTENTS

1 INTRODUCTION.....	5
2 BACKGROUND AND PURPOSE OF THE STUDY	7
2.1 School development: top-down or bottom-up?	7
2.2 Austrian School System at a glance	7
2.3 Defining the research project	9
3 RESEARCH QUESTIONS.....	11
4 THEORETICAL FRAMEWORK	12
4.1 Conflicting theories of instruction – historical transformation of school.....	12
4.1.1 Equality or/and equity? What is a fair school?	13
4.1.2 Weighting of the different instructional lenses	14
4.1.3 Working conditions for the teachers	14
4.1.4 Generation change	14
4.1.5 Benefits of this historical need for re-thinking school.....	15
4.2 The concept of need in Self-Determination Theory.....	15
4.3 The concept of need in Cultural-Historical Activity Theory.....	17
4.4 The relationship between the CHAT and the SDT approach.....	18
5 METHOD AND RESEARCH DESIGN.....	23
5.1 Researching teacher and teaching researcher.....	23
5.2 Narrative Interviews.....	23
5.3 Questionnaire – Basic Psychological Needs Scale at Work.....	23
5.4 Formative Change Laboratory intervention in school conferences.....	24
6 RESEARCH SITE	26
7 DISSERTATION FRAMEWORK	27
7.1 Article I: On the concept of needs.....	27
7.2 Article II: Change potential in the school	27
7.3 Article III: Resistance and Agency in the school.....	28
7.4 Article IV: Designing and implementing change in school	28
7.5 Preliminary time frame.....	29
REFERENCES.....	30
APPENDIX	32

List of tables

Table 1.	Milestones in the history of the Austrian School System	8
Table 2.	SDT's basic psychological needs.....	15
Table 3.	Societal demands juxtaposed to basic psychological needs.	16
Table 4.	Relationship between the SDT and the CHAT approach	19
Table 5.	Preliminary time frame	29

List of figures

Figure 1.	Austrian education system (primary & secondary level)	9
Figure 2.	Needs in an activity system	18
Figure 3.	Different dimensions of manifestations of needs	20
Figure 4.	School system levels.....	21
Figure 5.	Viewing both approaches simultaneously	22
Figure 6.	Expansive learning cycle (Engeström, 1999)	25

1 INTRODUCTION

European and international comparability concerning the quality of education, achieved by applying nationwide standardized testing (PISA, TIMSS, PIRLS), has put governments under considerable pressure to improve the quality and efficiency of their school systems, leading to continuous and accelerating change in their education policies: school reform has become a permanent process that takes place at a seemingly increasing pace. Literature on that topic (Saunders, 2012; Deci, 2009; Egan, 2008; Sahlberg, 2011) points at the crucial role that the personal and collective development of teachers and school administrators plays in this process as they have to keep up with, internalize and execute those reforms, oftentimes facing a perceived loss of agency on their side.

Austria being no exception to the above stated is in the midst of a thorough reform process that amongst other pressing issues works at an essential reform of secondary education. A case study at a rural secondary school analyzes the situation of Austrian secondary school teachers in the transition process towards a *new secondary school* as they try to keep pace with the changing education policies. This transition requires a profound learning process, a process that involves a new type of agency that becomes visible in new patterns of activity that are rooted in a new theoretical concept – in short, an *expansive learning process* as it is described by Engeström and Sannino (2010). In order to raise the teachers' collective agency – their *capacity to change the world and their own behavior* – it is crucial that they are able to perceive themselves as active partners in that reform process and that they (re)discover and (re)develop their shared object of an ideal school community that fosters sustainable teaching and learning alike as it takes on a new shape and continuously (re)invents itself. This is achieved by a careful analysis of the contradictions that due to the rapid and radical systemic changes arise in teachers' activity on classroom, school and school system level. Being a long-time teacher at the above mentioned rural secondary school, I investigate how these contradictions affect teachers' *needs* and how these needs can be understood and met with respect to both content and implementation of the proposed changes in order to facilitate an effective and sustainable reform process.

Cultural-Historical Activity Theory (CHAT) in the tradition of Vygotsky, Leont'ev and others studies the interplay of human activity and needs (Bratus & Lishin, 1982), as they take on individual and universal forms, and traces those needs in their historical movement and development. Thus, the CHAT tradition provides a very vivid and particularly dynamic concept of need that I intend to draw upon. At the same time, however, I also want to utilize a different theoretic-

cal approach, one that comes from an opposite direction and from an utterly different tradition: I propose to bring into the picture the basic psychological needs (BPN) as laid out in Self-Determination Theory (SDT, Deci & Ryan, 2000) as main categories of needs in order to arrive at a new concept of need that serves me as a workable tool that I can use for analyzing change in educational settings and that – while fully acknowledging the seemingly insurmountable differences between both theoretical approaches and traditions – provides me with the benefit of being able to look at school reform from different, if not opposing, angles.

One of the methods utilized in the CHAT tradition, the Change Laboratory method (Engeström, 1987; 1996), developed to facilitate transformational change in work and educational settings, promotes *expansive learning* as a new type of learning. This study follows the cultural-historical activity-theoretical tradition and the methodological implications laid out in the Change Laboratory method, ultimately aiming at fostering and analyzing such an *expansive learning process* of the teacher team that, while being in line with the changing education policies, demonstrates a *new agency* that corresponds with a *theoretical concept* that reveals a deepened understanding of the different manifestations of needs as they become objectified in *school*.

2 BACKGROUND AND PURPOSE OF THE STUDY

2.1 School development: top-down or bottom-up?

According to Lamm (1976), institutionalized education has from the very beginning tried to fulfill three major, but oftentimes contradictory, tasks (or societal needs, so to speak): acculturation, socialization and individuation. Following societal and therefore political conditions, one or the other paradigm has moved to the foreground, representing the prevailing zeitgeist. Typically, public schooling follows the predominant trend in a top-down-approach: As society changes and develops and highlights one or the other of the above mentioned tasks, so must school, although it often seems to be lagging behind societal developments, often leading to the assumption that school is resistant to innovation. On the other hand, school development has also always been fostered by individual teachers who – due to their personal development or to experiences that they made at distinct points of their lives – have come up with novel ideas, looking for new paths off the beaten tracks and slowly but irresistibly triggering school development *from below*.

Teachers have to deal with both aspects: As *officials*, they have to execute educational policies that are prone to change at a faster pace than they are ready to react to and which they often are not given the time to internalize. Nor might they be willing to internalize them as those new policies are often promoted in a way that questions almost anything about their hitherto practice. As *teaching professionals*, on the other hand, they have chosen a job that potentially meets their needs by giving them the opportunity to actively develop their understanding of education and school development. It is the aim of this research project to investigate ways of complementing the given top-down approach with a self-determined bottom-up approach that – while being in line with the educational policies – understands and meets the needs of the teachers and facilitates sustainable school development.

2.2 Austrian School System¹ at a glance

Milestones in the history of the Austrian School System with regard to secondary school comprise the following key dates:

¹ http://www.bmukk.gv.at/schulen/bw/ueberblick/sw_oest.xml

1774	Empress Mara Theresia introduces public schooling with six compulsory school years.
1869	A law concerning the general public school system is passed (<i>Reichsvolksschulgesetz</i>). Eight years of school become compulsory.
1918	Otto Glöckl, head of the Vienna School Board, introduces a school reform that aims at equal rights for all children, regardless their gender and social background, proposing what would nowadays be called a comprehensive school.
1927	Secondary school is introduced as a school for 10-14 year olds.
1962	Reform of the law concerning public schooling. Nine years of school become compulsory. Teacher training academies are introduced.
2012	The new secondary school becomes a regular school that is to fully replace present day secondary school by 2018/19. Radical reforms concerning teacher education and public services law concerning teachers are under way.

Table 1. Milestones in the history of the Austrian School System

Presently, there are three school types in Austria that offer an education for the lower secondary level (students between 10 and 14 years of age): the *academic secondary school*, the *new secondary school* and the (misleadingly officially so translated) *lower secondary school* that is to be replaced by the new secondary school by the school year 2018/19 (cf. fig. 1).

Present day lower secondary school still uses the concept of streaming which was introduced in Austria just around the time it was already removed in Finland. The concept of streaming replaced an older idea of having parallel classes for different achievement levels in Austrian secondary schools. While secondary schools have been very successful in rural areas in the last twenty-five years (due to the absence of competing grammar schools/academic secondary schools) they have come under enormous pressure in urban areas where most gifted pupils opted for grammar schools, oftentimes degrading the secondary schools to be a school for less talented pupils and immigrants still struggling with the new language.

In an attempt to improve the situation, the Ministry of Education introduced the new school type – the *new secondary school* (Neue Mittelschule). There are no more ability groups, and there are numerous other major changes concerning pedagogical and organizational aspects, clearly pointing towards a comprehensive school for all children between 10 and 14 years in the long run. Many urban secondary schools opted in to try that new school type during a test phase. Meanwhile, the transition to that new school is already under way – the respective law passed the Austrian parliament in April 2012. In my school district, the remaining secondary schools in the remote areas will start the conversion process with the beginning of the school year 2015/16.

As many rural schools didn't opt in on trying the new secondary school in the test phase and now have to go through the conversion process regardless their inclination to do so, many of the teachers now feel pushed into a passive role, having to *react* to the situation instead of actively developing their schools. Thus investigating ways and methods for a bottom-up approach that is in line with the new school type and at the same time meets the teachers' needs is crucial for the development of both – the school system as well as the personal development of teachers.

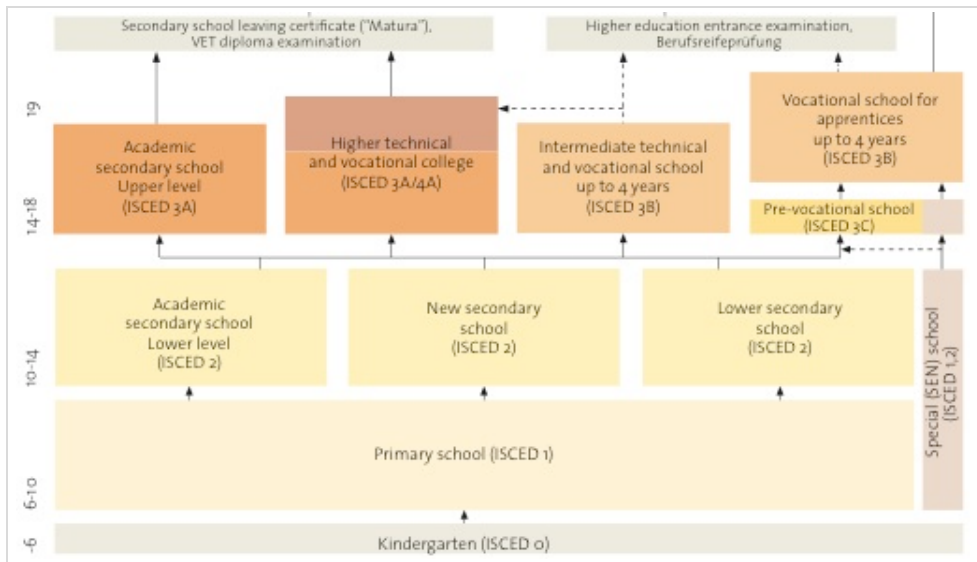


Figure 1. Austrian education system (primary & secondary level); source: <http://www.bmukk.gv.at/schulen>

2.3 Defining the research project

Expansive learning leads to the formation of a **new, expanded object and pattern of activity oriented to the object**. This involves the **formation of a theoretical concept of the new activity**, based on grasping and modeling the initial simple relationship, the ‘germ cell’, that gives rise to the new activity and generates its diverse concrete manifestations (Davydov, 1990). The formation of an expanded object and corresponding new pattern of activity **requires and brings about collective and distributed agency**, questioning and breaking away from the constraints of the existing activity and embarking on a journey across the uncharted terrain of the zone of proximal development (Engeström, 1996, 2005). In other words, the ‘what’ of expansive learning consists of a triplet: expanded pattern of

activity, corresponding theoretical concept, and new type of agency.
(Engeström & Sannino, 2010, accentuation added)

Following Engeström's and Sannino's description of the outcome of expansive learning in general, the research project pursues a threefold goal:

(1) **An expanded pattern of activity oriented towards an expanded object.** A historical analysis of the process of school development from the perspective of teachers between changing societal requirements that become visible in changing educational policies on the one hand and their developing and changing needs as individuals and as a team of teachers on the other. This analysis leads to the investigation of ways of complementing the systemic changes defined by the given top-down approach with a self-determined bottom-up approach by collectively redefining the subject's shared object of an ideal and livable school. This redefined and expanded object corresponds with an expanded pattern of activity that emerges in the process, and with it, **the corresponding needs also take on new concrete forms.**

The analysis is to be achieved by data gathered and analyzed in formative Change Laboratory interventions that are to be carried out in school development conferences, preceded and accompanied by autoethnographical notes, by narrative interviews with teacher colleagues and administrative personnel, and also by a questionnaire.

(2) **A corresponding theoretical concept.** A discussion and comparison of the nature of needs as they present themselves in the tradition of CHAT (Leont'ev, 1978; Bratus & Lishin, 1982; Fraser, 1998) and in modern need theories, in particular in Self-Determination Theory (SDT; Deci, 2000). Of special interest is the concept of needs in their movement between universal, particular and individual forms as well as their transition from drives to feelings to needs as laid out by Hegels (Fraser 1998, p. 50f). Contradictions are expected to become visible both between different needs and in the transitional movement of those needs between the different forms they take.

(3) **A new type of agency.** The *participants' ability to shape their activity systems* is the most important outcome of expansive learning (Engeström & Sannino, 2010). Possible indicators for such an emerging new quality of agency are, amongst others, (a) resistance (b) envisioning and (c) explicating new ways and possibilities for the activity; (d) commitment to actions or (e) actions per se in order to change the activity system.

I expect that an emerging new quality of agency also becomes visible in the **transition of needs from an old concrete to abstract to a new expanded concrete** as the universal needs for competence, relatedness and autonomy become particular, diversified and explicable again by the participants and thus help them shape and expand their shared object of activity accordingly.

3 RESEARCH QUESTIONS

The quest for a theoretical concept of need that on the one hand takes into account the opposing theoretical backgrounds of Cultural-Historical Activity Theory and Self-Determination Theory and at the same time tries to draw from both traditions boils down to two questions: Can this attempt to simultaneously look through two different *idea lenses* turn out to be a usable tool for an analysis, and if so, how can such a tool be used:

- I What would be a concept of need that serves as a workable tool to analyze change in educational settings and that brings together insights both from CHAT and SDT traditions?
- II How can such a tool be utilized to foster and analyze an expansive learning process in a school community?

4 THEORETICAL FRAMEWORK

In this section, I first sketch the historical background of educational settings in general and the Austrian situation in particular. I then turn toward the different concepts of need in Self-Determination Theory and Cultural-Historical Activity Theory before I discuss what benefit I expect from utilizing both theoretical approaches at the same time.

4.1 Conflicting theories of instruction – historical transformation of school

School as a societal institution has always followed societal demands. These demands fall mainly into three categories: (a) the passing on of cultural achievements, (b) the molding of new members for specific parts of society and (c) the formation of character and personality of individuals. Lamm (1976) accordingly identifies acculturation, socialization and individuation as the main categories for institutionalized education, the former two ensuring social continuity and the latter aiming at the development of individual traits.

While all three categories clearly point at central ideas of formal education, and while at first glance it should be the central aim to foster all three it soon becomes obvious that they pull in different directions, as Egan (2008, p.9) also points out:

Part of the problem with education is that most people combine the three ideas differently – and consequently their idea-lenses disclose to them different educational „realities“. Further difficulties are created because each idea is flawed, and each is also significantly incompatible with the other two.

Another interesting categorization is pointed out by Craft (1984, p. 9), who sees *two* main goals for education that both can be derived from the Latin verbs *educare* and *educere*, the first meaning *to train* or *to mold*, and the second *to lead out*: *Social continuity* on the one hand and *education of individuals* on the other represent the main goals of formal schooling, which becomes visible in an ever ongoing struggle between conformity and diversity.

In its struggle to follow the prevailing societal demands, school development can thus be also interpreted as recurring twists concerning the respective point of view on educational paradigms that follow societal developments, and history has shown that these changes in perspective are like a swinging pendulum,

usually moving somewhere between extremes and changing its direction once an extreme has been reached.

What's more: Teachers as individuals and as teacher teams have to cope with these changes, regardless of at what point in their personal teaching career they are taking place, and regardless of their current personal attitude concerning the primacy of one demand over the others or the equality of all three of them. In order to arrive at a new shared object of an ideal school, these individual *idea lenses* have to be considered and dealt with as much as the fact that – following the parable of new wineskins being needed for new wine – teachers that are already close to their retirement are not very likely to change their individual perspectives according to the prevailing *zeitgeist*.

Taking these general considerations as a point of departure for this discussion, what then are major challenges in the Austrian school system and its quest for change, and where do the above mentioned demands become visible?

4.1.1 Equality or/and equity? What is a fair school?

In the ongoing process of transition towards a new secondary school in Austria, there is currently a lively debate going on among educational stakeholders and almost any political group as to how those ideas are ideally and practically to be combined: Can *equality* and *equity*² be reached at the same time? Is this an objective worth pursuing at all? How could individual talents of students on the one hand be fostered and then be measured with standardized tests?

While certainly everyone (with few shameful right-wing exceptions) agrees that every school child – regardless her or his origin, gender, religious background or any other criterium – has to get equal and optimal chances, there is an ongoing discussion about how to achieve this. In the last decades, there has been a clear trend towards trying to achieve equity for all kids of a certain class (*age groups* are still used to separate students in classes in by far the most schools) by integrating them into one group of learners: first, there were ability *classes*; then (when I started teaching), ability *groups* were introduced; in the new secondary school, there are no more ability groups at all. Instead, it is tried to foster each and every single child according to his or her abilities individually. Not that this hasn't been the goal previously, but now, there are no more different groups. There are, however, still different types of schools for lower secondary education, and the discussion about merging them into one comprehensive school for all school children aged from six to fourteen has been going on for decades now.

² *equality*: everyone gets the same piece of cake, everyone is at the same level; *equity*: the individual pieces of cake are measured due to the individual needs of everyone, based on previously negotiated criteria for fairness

4.1.2 Weighting of the different instructional lenses

One of the major concerns of teachers is that the government's attempts to improve the quality of the school system as a whole seems to be biased towards efficiency and presentable test results, compromising the *individuation* part of school's mission. The ministry's official website of the *new secondary school*³, especially where its pedagogical concepts are laid out, is bound to prove me wrong in that respect – in fact, the very first of those concepts is *individualization*. And I would gladly be proven wrong, since other concepts include, for instance, *social learning* and *integration*, *gender equality* or *creativity* – pedagogical concepts that doubtlessly anyone would quite happily subscribe to.

However, the way test results are discussed at least potentially paints a different picture. Seen from that perspective, it tends to lead to rankings between schools and unproportionally stresses the sets of competences that have to be reached by the end of the school time, revealing a tendency to overlook the individual talents of students. More than ever, there seems to be a pressure for schools to be efficiently run businesses that produce grades and test results versus being a place where individuals can develop: Acculturation and socialization aiming at achieving sets of competences and becoming obedient citizens seem to have achieved primacy over individuation.

4.1.3 Working conditions for the teachers

As almost half of present day Austrian primary and secondary school teachers will retire in the next ten to twelve years, the ministry of education also tries to use this historical chance by adapting the public services law for young teachers: They should work more and get paid less (in terms of the total income during their working lifetime), but receive higher salaries when they start teaching. These issues concerning a new teachers' public services law are currently being negotiated over and over again, and of course they also provide food for endless discussions in teachers' staffrooms.

4.1.4 Generation change

Also, the present demographic situation of secondary school teachers means that in some schools, the transition towards a new secondary school now has to be carried out by teachers that are close to retirement. As stated above, this attempt to *fill new wine in old wineskins* may turn out to be quite a challenge. On the other hand, it could also turn out to be very fruitful for teacher teams if they take

³ <http://www.neuemittelschule.at>

the chance and draw on the expertise of their older and more experienced colleagues.

4.1.5 Benefits of this historical need for re-thinking school

One of the main benefits of this reform process is without any question the necessity to re-think, re-interpret and re-negotiate the respective idea lenses in the minds of teachers and of school authorities. This is one of the major chances that I see for the development of the Austrian school system in general and of my own school in particular in the course of this transition process towards a new secondary school.

On this historical background, the concepts of need as they are laid out in Self-Determination Theory and Cultural-Historical Activity Theory are introduced (chapters 4.2 and 4.3) and finally juxtaposed (4.4).

4.2 The concept of need in Self-Determination Theory

Complementary to societal efforts that try to make sure that an educated person (a) has mastered the most important cultural tools, (b) is a well-socialized member of the community and (c) has developed an individual character, Self-Determination Theory (SDT, Deci & Ryan, 2000) maintains three individual basic psychological needs (BPN) that need to be met in order to facilitate personal development: The experience of competence, relatedness and autonomy are essential for a person to thrive. These basic psychological needs are described as follows:

need	what it is	what it is not
competence	felt sense of confidence and effectance in action	an attained skill or capability
relatedness	feeling connected to others, to caring for and being cared for by those others, to having a sense of belongingness both with other individuals and with one's community	not concerned with the attainment of a certain outcome
autonomy	being the perceived origin or source of one's own behavior	independence

Table 2. SDT's basic psychological needs

These needs are maintained to be *innate*; they are *organismic necessities* rather than aquired motives (Deci & Ryan, 2000, p. 229); they are individual; they are *universal* and have evolved and belong to the *common architecture of human nature* (p. 252). As such, this concept of needs stands in sharp contrast to the

concept of needs in the tradition of activity theory which I will turn to later. Yet, I intend to look through this self-determination-theoretical lense – and not only because of the fact that once one has started looking through such an *idea-lense*, it becomes difficult *not* to see realities without this perspective:

What makes these needs so interesting for my purposes is (a) the fact that they can be opposed to the societal demands (which I interpret to be the same needs on a societal level, which means they can have historical and collective counterparts) and (b) these needs provide me with a basic categorization of human activity in general and teachers’ activity in particular. This hopefully helps me to map the multifaceted forms of needs that are expressed in teacher’s everyday work into a basic grid that can be used to make those needs visible in the activity systems of teachers. And finally (c), as a theory of motivation, SDT is also concerned with the integration and internalization of extrinsic regulations, something I intend to return to and discuss in the course of the proposed formative Change Laboratory interventions.

What society wants (Lamm, 1976):	What the individual needs (Deci & Ryan, 2000):
acculturation (initiating the youngs into a culture)	perceived feeling of competence : confidence and effectance in action
socialization (training the youngs for social roles)	experience of relatedness to others: feeling connected to others
individuation (supporting their self-actualization)	experience of autonomy : being the perceived origin of one’s behavior

Table 3. societal demands juxtaposed to basic psychological needs

Deci (2009) points out the importance of taking into account the BPN of everyone in the school community if it is to take up and internalize new approaches in the process of large-scale school reform. He stresses the crucial role that a perceived feeling of competence and the experience of relatedness and autonomy play. This point of view, however, stresses more the importance for **school authorities** to implement a reform in a way that allows teachers to *feel* competent, related and autonomous – which undoubtedly plays a crucial factor. But it tends to attach significantly less importance to the need for a corresponding expanded *agency* that arises from a **teacher team** that intentionally and collectively redefines its shared object of an ideal school and that in doing so develops those universal needs towards new concrete forms as an expanded form of activity emerges.

4.3 The concept of need in Cultural-Historical Activity Theory

... humans begin with drives that manifest themselves in feelings that take the form of needs. Attention to the importance of form is therefore essential to grasp concepts in their movement and transition. Drives become needs. Needs take further forms as humans manifest themselves in the world and interact with nature and, eventually, with other humans ...

Hegel is attempting to grasp the subject positing himself or herself particularly and universally through his or her needs. Initially, the subject's needs are subjective, particular and related only to himself or herself. As the subject moves into the next realm of ethical life, however, he or she will soon realise that his or her own particular need is inseparable from the universal needs of other people. (Fraser, 1998, p. 50f)

In CHAT, needs and activity are tightly linked, like two sides of the same coin. According to Bratus and Lishin (1982), a change in an activity consequently brings about a change of the corresponding needs, and vice versa: A need causes an activity, which has effects both on the acting subject and the object being acted upon. This leads to a change in the need (N), which in turn causes a change in the activity (A): $N_1 - A_1 - N_2 - A_2 - N_3 \dots N_x$. Thus not only the activity can be traced in its historical development, but necessarily also the needs linked to it, their development, movement and transition between different forms. As Fraser states, drives develop into needs that take on further forms as humans manifest themselves in the world in their interaction with nature and with other humans, in other words, as they become *competent* with respect to an objective world and *related* to other humans. These needs can be traced in their movement and development between individual and collective, and between universal and particular forms, eventually also reflecting the societal demands as above explicated:

Needs, seen from the perspective of CHAT, are not innate, organismic necessities that have evolved and are now encoded in humanity. Instead, they are *collective* (albeit they can take on individual forms); they turn into *motives* when they become linked to concrete objects; they develop on a *cultural background* and therefore have a *history*; being entangled with activity, they are in constant motion and transition and consequently present themselves in different forms. In this entanglement, they mirror the reciprocal effects that subject, object and community have on each other as an activity develops, as is sketched here as vectors into a general activity system (Engeström, 1987) in fig. 2:

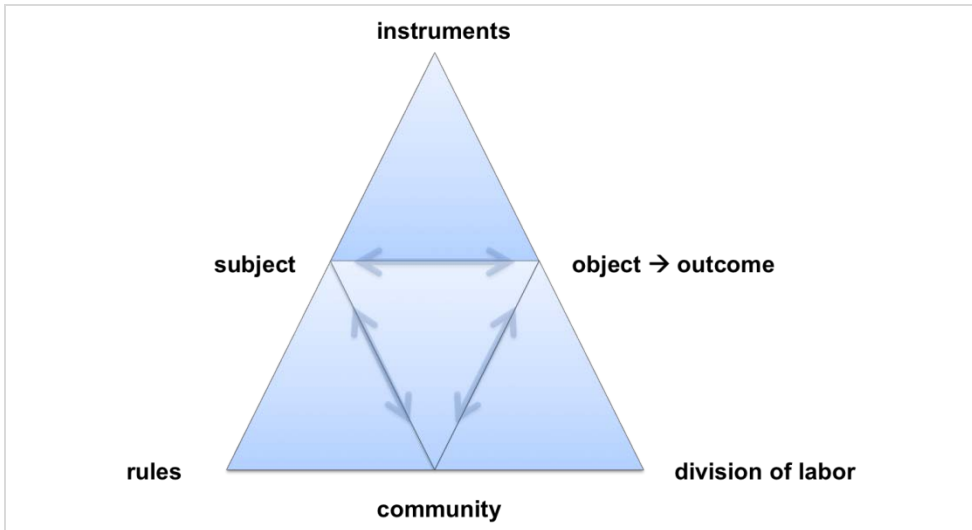


Figure 2. Needs in an activity system

4.4 The relationship between the CHAT and the SDT approach

How can the two above described approaches now be put into relation? Looking at both concepts of need at the same time reveals their seemingly unsurmountable differences. They are like day and night, or water and oil, and any attempt to bring them together is bound to be doomed. But what happens if one uses them as two distinct theoretical lenses at the same time? Does one get a weird 3D-effect, like watching a 3D-movie through the respective glasses, or like watching one of those stereographic pictures that were popular in the 1990ies, by focusing the eyes on some distant point behind that picture?

approach	Self-Determination Theory	Cultural-Historical Activity Theory
origin	evolved	historic
	innate	developed, acquired
individual /collective	individual	collective
necessity	organismic necessity	cultural necessity
motivation	intrinsic motivation	motivation by the object
set point	growth-oriented activity	cultural-historical activity

Table 4. relationship between the SDT and the CHAT approach

As becomes evident in table 4, these concepts of need are worlds apart. Yet, in seeing one in the light of the other, and in direct juxtaposition, a different picture emerges: Following Fraser’s argument in his reading of the concepts of needs of Hegels and Marx, it can be argued that the initial drive for survival and wellbeing becomes manifest in general needs for competence, relatedness and autonomy. These universal needs develop into individual and particular as well as collective and universal forms, ultimately also becoming visible as societal demands. Hegels tries to capture these different needs in their transition between the different forms they take. Seen from this perspective, the major benefit of this attempt to look through these distinct theoretical lenses would be the ability to explain competence, relatedness and autonomy on the one hand and acculturation, socialization and individuation on the other to be different universal need forms that develop particular manifestations in everyday practice.

What does this mean for the activity system of institutionalized education called *school*, and more precisely, for the teachers’ perspective on and within that activity system? In short, teachers find themselves between their own individual and collective needs in particular and universal manifestations that they perceive as personal needs and societal demands:

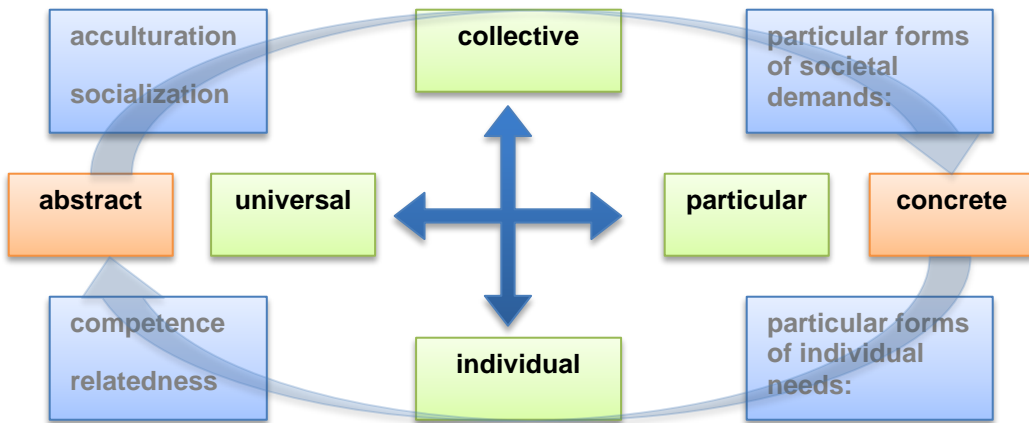


Figure 3. Different dimensions of manifestations of needs

Fig. 3 demonstrates different dimensions of manifestations of needs. In their abstract forms, the basic psychological needs and the societal demands present themselves as universal need forms. In everyday school practice, these needs take on particular forms and become concrete.

Thus, school *development* can be understood as a movement from a present concrete understanding of societal demands and individual needs with regard to institutionalized education to a historical and general abstract that allows reorientation towards a new and expanded concrete.

These manifestations become visible on different levels: Engeström (2010, p. 86) detects a *middle layer* between the formal structures of the *school system* and the *contents and methods of teaching*. This layer has been identified as *hidden curriculum* by various authors (cf. Engeström, 2010). I perceive it as school level that theoretically but even more so practically connects the school system and the classroom level. Accordingly, I seek to analyze teachers' practice on those distinct yet thoroughly interconnected levels – the level of the school system, the school level and the classroom level:

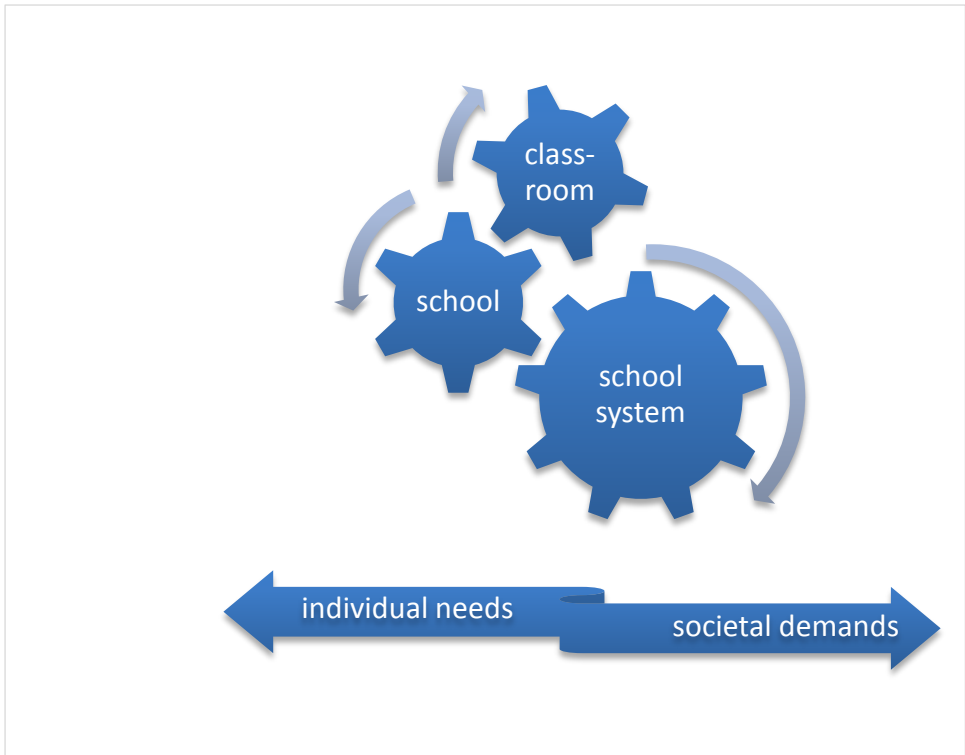


Figure 4. School system levels

What kind of picture does then emerge when we look through the two different theoretical lenses of SDT and CHAT at the same time? By interpreting societal demands and basic psychological needs to be different manifestations of need in the cultural-historical tradition it becomes possible to identify them as abstract universal forms of human activity in general and in teachers' activity in particular. since they deal with both their students' and their own basic psychological needs and at the same time with societal demands, as demonstrated in fig. 5:

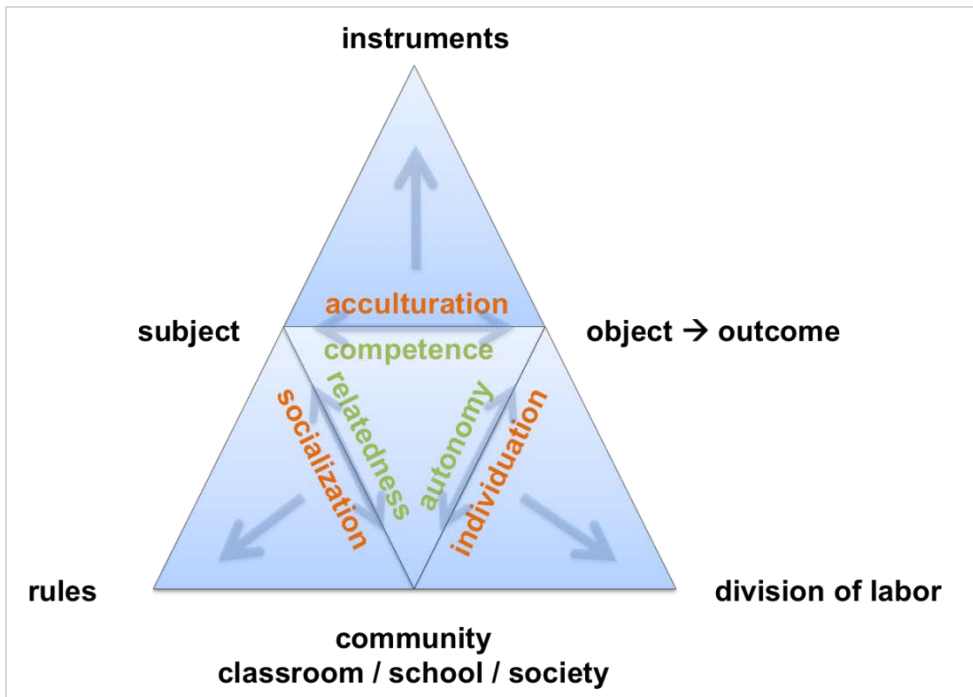


Figure 5. Viewing both approaches simultaneously

In fig. 5, both theoretical approaches become visible at the same time, like using two overlapping overhead transparencies, or like using the above mentioned 3D glasses. The outward pointing arrows depict what formal education tries to achieve, whereas the SDT's basic psychological needs and their respective societal counterparts are interpreted as universal abstract need forms.

As such, this concept of need takes into account the basic incompatibility of the SDT and CHAT traditions, but at the same time provides a rich and dynamic picture of human activity in general and of teachers' activities in educational settings in particular.

5 METHOD AND RESEARCH DESIGN

5.1 Researching teacher and teaching researcher

I find myself in the unique situation of being both researching teacher and teaching researcher at the same time, a position that lends itself to analytical autoethnography (Anderson, 2006) as one of the methodological approaches: I've been a full member in the school setting for more than twenty-five years, a fact that can't and won't be hidden in the published texts. And I'm committed to the further development of the theoretical understanding of school development between societal demands and personal basic psychological needs.

Moreover, in the course of the research, the participating teacher teams will – at least on an introductory level – get acquainted with the research methods and become part of the researcher's team. The employed theories are not hidden from them – they become part of the mirror material that is used in the formative interventions. The proposed narrative interviews and the questionnaire are supposed to trigger an involvement in the research process. This is thought to be crucial for the success of the Change Laboratory conferences.

5.2 Narrative Interviews

Narrative interviews are conducted with voluntary teachers in different positions as well as with key figures of the school authorities. The data are analyzed with respect to key phrases concerning societal demands and basic psychological needs and are used as initial mirror material for the subsequent Change Laboratory Sessions.

The questions focus on the situation of teachers between their individual needs and the societal demands that come with the profession. They also aim at covering the historical perspective – both from the point of view of individual and societal development.

A preliminary draft of the proposed interview questions can be found in the appendix.

5.3 Questionnaire – Basic Psychological Needs Scale at Work

The Basic Psychological Needs Scale at Work, developed by Deci and Ryan, serves as another initial tool to make the satisfaction of teachers' basic psychological needs at school visible. As such this scale also provides mirror data for the proposed formative Change Laboratory interventions that are to take place in

the regular school development conferences. The questionnaire is set up online, utilizing the survey platform surveygizmo.com⁴. It is set up bilingually, in English and German, and it appears in English unless a user's computer system is set to German. The English translation is Deci's and Ryan's original version, the German version was translated by me. Besides from basic statistical evaluations, surveygizmo also offers full SPSS export functionality for an in-depth-analysis.

The exact wording (English and German translation) of the questionnaire including the colour-coded main categories and the questions that are to be evaluated reversely can also be found in the appendix. Competence, relatedness and autonomy are supposed to serve as initial main categories for data evaluation.

5.4 Formative Change Laboratory intervention in school conferences

Following the above mentioned methods of data collection, formative Change Laboratory interventions are planned to be conducted in school development conferences. A historical analysis helps *charting a zone of proximal development that needs to be traversed in order [to] move beyond the existing contradictions* (Engeström & Sannino, 2010, p. 9). In the course of the analysis and the previous interventions/methods of data collection, these contradictions are expected to become also visible as conflicting needs.

Competence, relatedness and autonomy as well as their counterparts on societal level, acculturation, socialization and individuation are depicted as universal forms of needs that manifest themselves in particular and concrete forms in everyday school activities on classroom, school and school system level. In the course of the historical analysis, these needs are traced back to their universal abstract forms in order for the participants to be able to collectively work out new expanded patterns of activity that in turn meet new and expanded particular forms of the above mentioned needs. This procedure follows the sequence of learning actions as they are explicated in an expansive learning cycle (Engeström, 1999, p. 334):

⁴ Link to a test version of the questionnaire: <http://bit.ly/VLFiBR>

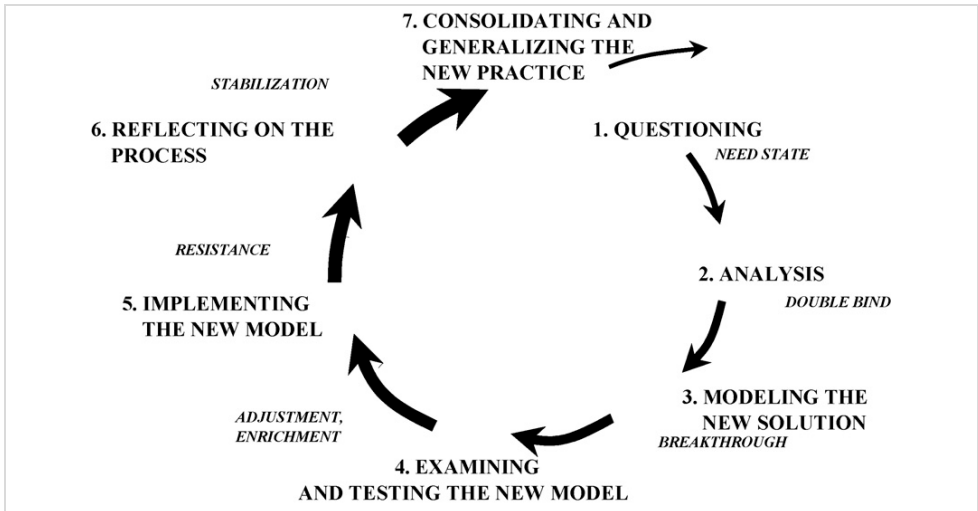


Figure 6. Expansive learning cycle (Engeström, 1999)

For a basic grid as to how to set up those Change Lab sessions, it is intended to take into account the experiences gathered by Yuri Lapshin, a fellow colleague in my doctoral class at the CRADLE. As of February 2013, he's in the middle of a series of formative Change Laboratory interventions at a Moscow school. In their basic structure these interventions might serve as a model for the ones that are to take place at the Austrian school.

So far, first data are being collected in autoethnographical notes and narrative interviews. Also, texts and other materials are being gathered. At the present stage of the research, though, none of the data have been analyzed.

6 RESEARCH SITE

The research site is a small rural secondary school in the north of Upper Austria which is about to be converted to a *new secondary school* beginning in 2015/16, having finished that conversion process by July 2018, when the last students of the present version of secondary school leave that school. It was founded in the early 1970ies, following attempts of the government of providing better secondary education in rural districts.

It became an all-day school in 1980, which means it started to provide cooked lunches and afternoon activities. With no other competing schools around, that school has practically also acted like a comprehensive school for all students of that school area. As of writing this research plan, I have been teaching at that school for over 24 years.

7 DISSERTATION FRAMEWORK

The dissertation is to be composed of four articles, framed by an introduction and a concluding discussion.

7.1 Article I: On the concept of needs

Possible target journal: *New ideas in Psychology*

The first article is theoretical. It elaborates on the concepts of needs as laid out in chapter 4 in detail: Following from the concepts of needs in Hegel's and Marx's theories (Fraser, 1998), it is maintained that needs have to be understood dialectically, in their transition between individual and collective needs, between particular and universal needs and in their development from drives to needs as well as in their movement from abstract to concrete:

The essential evolutionary drive to survive means having to establish ways of coping with the environment (becoming competent), of establishing relations with other members of the species (becoming related) and of collectively dealing with, influencing and being influenced by the environment (becoming autonomous). These universal and abstract drives for competence, relatedness and autonomy develop into universal human needs and take on particular forms due to the use of emerging cultural artifacts, of rules and of the emerging division of labor, eventually becoming evident in the three main categories that institutionalized education has to deal with: acculturation, socialization and individuation.

An analysis compares similarities and differences between the concepts of needs in Self-Determination Theory and in Cultural-Historical Activity Theory.

7.2 Article II: Change potential in the school

Possible target journal: *Theory and Research in Education*

An in-depth-analysis of teachers' activity on classroom, school and school system level, embedded in its historical context, aims at identifying the crucial conflicts that arise within and between constituent components of the central activity, between the old and the new object/motive and between neighbouring activity systems (primary to quaternary contradictions).

Especially under scrutiny are tertiary contradictions that are expected to become visible as concrete needs are traced to their universal forms and eventually become objectified to a new, expanded object.

Data are collected from autoethnographical sketches, narrative interviews and the Basic Psychological Need Satisfaction at Work Scale. They are subsequently used as mirror material in specially adapted Change Laboratory sessions in school development conferences.

7.3 Article III: Resistance and Agency in the school

Possible target journal: *Reflective Practice*

Analytical autoethnography (Anderson, 2006) and narrative interviews are scrutinized with regard to their interventionist potential, seeking to establish an interventionist framework that encompasses autoethnographic monologue, narrative dialogue and discussion complementing the formative Change Laboratory interventions set up as school development conferences.

7.4 Article IV: Designing and implementing change in school

The fourth article deals with the adaptation of formative Change Laboratory interventions in order to facilitate a tool that is appropriate for school development conferences. Ongoing Change Lab sessions are analyzed with respect to the finetuning of Change Laboratories in school settings.

The formative Change Laboratory interventions that are presently (fall 2012 – spring 2013) being conducted at a Moscow school by a fellow doctoral student, Yuri Lapshin, are referred to as models.

7.5 Preliminary time frame

	2013	2014	2015
data collection	autoethnographic notes interviews questionnaires	autoethnographic notes interviews questionnaires Change Laboratories	
writing	article I draft articles II & III	articles II & III draft article IV	article IV dissertation
possible conferences/ seminars	SDT conference ISCAR summer school EARLI conference	ISCAR school	launch of NMS

Table 5. Preliminary time frame

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APPENDIX

Interview questions (teacher colleagues)

You as a teacher

1. Why did you become a teacher? What made you want to take up that profession? Was there a certain situation, a certain person – someone or something that made you really catch fire?
2. In what respect do you still relate to this *first love* – how do you keep that fire alive?
3. What do you think influenced your personal teaching style most? Your own teachers, what you learned in teacher training, your experience as teacher, other factors?
4. In what respect would you like to further develop your teaching and your teaching environment? What steps, opportunities, obstacles come to your mind?

School / institution

1. Looking at the time that you (have already) spent at this school: What developments, what events would you see as most crucial? In retrospect, how would you evaluate them?
2. Trying to take an outsider's perspective, what would you say are distinctive features of this very school? What adjectives come to your mind?
3. What organizational, institutional, political, changes (if any) would you suggest in order to provide you with the perfect working conditions? Think of the school as a building filled with people that work here under certain conditions. Figure yourself in the classroom, in the faculty room and in the institution called school.
4. What organizational, institutional, political, changes (if any) would you suggest in order to provide your optimal image of the perfect school?

Basic Psychological Needs at Work Scale

This is Deci's and Ryan's Basic Needs at Work Scale and its German translation. Items number 1, 5, 8, 11, 13, 17 and 20 refer to the experienced autonomy at work, items number 2, 6, 7, 9, 15, 16, 18 and 21 refer to the perceived relatedness at work and items number 3, 4, 10, 12, 14 and 19 refer to the sensed competence at work. (R) indicates that the answers are to be evaluated reversely.

The questionnaire is conducted online and besides from asking for school type (secondary school or *new* secondary school), gender and age group (three groups: 21-35, 36-50, 51-65) does not collect any personal data.

Basic Need Satisfaction at Work

Erfüllung der psychologischen Grundbedürfnisse am Arbeitsplatz

Welcome	Willkommen
The following questions concern your feelings about your job during the last year. Please indicate how true each of the following statement is for you given your experiences on this job. Remember that your boss will never know how you responded to the questions. Please use the following scale in responding to the items.	Die folgenden Fragen betreffen deine Gefühle bezüglich deiner Situation am Arbeitsplatz im vergangenen Jahr. Bitte führe an, inwieweit die folgenden Aussagen mit deinen Erfahrungen am Arbeitsplatz übereinstimmen. Deine Antworten werden selbstverständlich vertraulich behandelt. Verwende bitte die folgende Skala für deine Bewertung der Aussagen.
1 not at all true 2 3 4 somewhat true 5 6 7 very true	1 stimmt gar nicht 2 3 4 stimmt ungefähr 5 6 7 stimmt genau
Statements concerning the Basic Need Satisfaction at Work	Aussagen zur Erfüllung der psychologischen Grundbedürfnisse am Arbeitsplatz
1. I feel like I can make a lot of inputs to deciding how my job gets done.	1. Ich habe bezüglich der Gestaltung meiner Arbeit große Entscheidungsfreiheit.
2. I really like the people I work with.	2. Ich mag meine Arbeitskolleginnen und -kollegen sehr.
3. I do not feel very competent when I am at work. (R)	3. Ich fühle mich in der Arbeit nicht besonders kompetent.
4. People at work tell me I am good at what I do.	4. Meine Arbeitskolleginnen und -kollegen sagen mir, dass ich meine Arbeit gut erledige.
5. I feel pressured at work. (R)	5. Ich fühle mich in der Arbeit unter Druck.
6. I get along with people at work.	6. Ich verstehe mich mit meinen Arbeitskolleginnen und -kollegen.
7. I pretty much keep to myself when I am at work. (R)	7. Ich arbeite meistens für mich alleine.
8. I am free to express my ideas and opinions on the job.	8. Ich kann meine Ideen und Meinungen über meinen Job frei ausdrücken.
9. I consider the people I work with to be my friends.	9. Ich betrachte meine Arbeitskolleginnen und -kollegen als Freunde.
10. I have been able to learn interesting new skills on my job.	10. Ich habe in meiner Arbeit interessante neue Fertigkeiten erworben.

11. When I am at work, I have to do what I am told. (R)	11. In der Arbeit muss ich tun, was mir angeschafft wird.
12. Most days I feel a sense of accomplishment from working.	12. An den meisten Tagen erfahre ich ein Gefühl der Zufriedenheit nach getaner Arbeit.
13. My feelings are taken into consideration at work.	13. Auf meine Gefühle wird in der Arbeit Rücksicht genommen.
14. On my job I do not get much of a chance to show how capable I am. (R)	14. In meiner Arbeit habe ich nicht viele Möglichkeiten, meine Fähigkeiten unter Beweis zu stellen.
15. People at work care about me.	15. Meine Arbeitskolleginnen und -kollegen interessieren sich für mich.
16. There are not many people at work that I am close to. (R)	16. Ich habe nicht zu vielen meiner Arbeitskolleginnen und -kollegen eine nähere Beziehung.
17. I feel like I can pretty much be myself at work.	17. Ich habe das Gefühl, am Arbeitsplatz ich selber sein zu können.
18. The people I work with do not seem to like me much. (R)	18. Meine Arbeitskolleginnen und -kollegen scheinen mich nicht besonders zu mögen.
19. When I am working I often do not feel very capable. (R)	19. Bei der Arbeit fühle ich mich nicht besonders geeignet.
20. There is not much opportunity for me to decide for myself how to go about my work. (R)	20. Ich sehe mir nicht viele Möglichkeiten selbst zu entscheiden, wie ich meine Arbeit angehe.
21. People at work are pretty friendly towards me.	21. Meine Arbeitskolleginnen und -kollegen sind mir gegenüber ziemlich freundlich.
Thank you!	Vielen Dank!
Thank you for taking our survey. Your response is very important to me.	Besten Dank für das Ausfüllen der Umfrage. Deine Antwort ist mir sehr wichtig.

Key:

- main categories: competence, relatedness, autonomy
- (R) means that that item is to be rated reversely