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How can we make our education future-proof?

Symposium title

Transformative agency for conceptual change in educational settings

Contributors:

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Themes

conceptual change; teaching and teacher education; learning and professional development

Type of contribution

formative interventionist; qualitative

List of individual presentations (title, name of author, affiliation, nationality)

- **Educational management in praxis: Moving beyond school walls**
Monica Lemos; University of Helsinki; Brazil; monica.lemos@gmail.com
- **Modernization of Teacher Education Programs: from Conflict of Motives towards Reflective Teaching**
Maria Safronova; Moscow State University of Psychology and Education, Russian Federation; University of Helsinki, Finland; mariasaf@gmail.com
- **Collective agency development through joint concept formation**
Yuri Lapshin; University of Helsinki; Russian Federation; annoory@gmail.com
- **»We don't see things as they are, ...«: Challenging teachers' individual and collective worldviews**
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Transformative agency for conceptual change in educational settings

Symposium abstract

The symposium seeks to address the conference theme by pointing out the relevance of cultural-historical activity theory (CHAT) for developing transformative agency in diverse domains of institutionalized education. Being located at the levels of school management, teacher education, and local schools, the studies each endorse a CHAT framework and utilize its formative interventionist methodology.

Monica Lemos discusses a chain of activities developed in a school located in a favela in the city of São Paulo, Brazil, and its community, trying to deal with a flood issue. The concept of collaborative agency is discussed as a way to support educational management beyond school walls.

Maria Safronova introduces an activity-oriented approach to the development of teacher education programs in Russia. Researchers argue that the conflict of motives within teacher educators' university teams and between them and stakeholders can be overcome through negotiating a common vision of the future-oriented object of activity and mediating artifacts for its reconstruction.

Yuri Lapshin presents an interventional research project from a Moscow school that needed to re-consider the teachers' joint activity system and solve inner conflicts. The question is how Vygotskian stages of concept formation can be applied to constructing the collective process of concept formation and collective agency development.

Martin Kramer highlights the case of an Austrian school. Teachers' individual worldviews and the collectively laid down school profile were utilized as second stimuli, establishing a critical dialogue, and allowing the teachers to collectively reconceptualize the school profile and become more reflective of their individual worldviews.

(249 words)

Monica Lemos

Educational management in praxis: Moving beyond school walls

Keywords: praxis, educational management, collaborative agency

Abstract

This research paper aims at discussing a chain of activities developed in a school, located in a favela in the city of São Paulo, Brazil, and its community, on how to deal with a flood issue. As theoretical background I discuss the concept of collaborative agency, and praxis as a way to leverage educational management beyond school walls. Methodologically I follow the transformative intervention research, based on the critical collaborative research and formative interventions, which implies different subjects taking part and negotiating decisions to be made during the research moving beyond the school setting. The analysis is based on categories of description and argumentation, which contribute to the scrutiny of different voices and activities in the relation between the school and its community. As a result I discuss how collaborative agency contributes to the transformation of the given context considering the praxis of educational management beyond school walls.

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Extended summary

Understanding educational management as cultural-historical and social movement means to assume educational management not only as accomplishment of tasks, but also considering management by activities that are collectively organized, based on subjects' needs towards a possible joint object. Most of public schools in the metropolitan areas in Brazil are located in outskirts communities, which also means that schools are surrounded by violence and marginalization, as for example in the city of São Paulo, where this research takes place. In São Paulo 2.7 million people live in favelas or other type of precarious marginalized housing, so it is very common to have students, teachers, and manager educators who have the right to go to school or to have their jobs there, but criminality and poverty in their living and working contexts are so big, they need to develop tools to make education happen inside and outside school in a less marginalized manner.

Bearing this context in mind, this paper focuses on a chain of activities to organize an educational system that face the dilemma of accomplishing policies focusing on the results of tests and assessments, and working with the social realities of marginalization not only for students but also for the educational professionals. This process is a sequence of formative intervention project for manager educators in the city of São Paulo, Brazil. The project was initiated to deal with the lack of collaboration amongst managers from different levels of the educational system, which was hampering the implementation of development policies and participatory decision-making in the school system (Liberali, 2012). The project started in 2011 in one Regional Board of Education, expanding to the Municipal Secretariat of education, as well as other twelve Regional Boards of Education and schools.

According to (Liberali, 2012), as a result of evaluation systems, manager educators became more concerned with grades, reports and aims instead of teaching, learning and transformation of communities.

In order to guide this paper, I state the following questions:

- (a) In which aspects did the formative intervention contribute to school and community members find a joint object to improve their conditions?
- (b) What were the theoretical limitations raised during the intervention?
- (c) How did the intervention contribute to potential theoretical development?

The paper also discusses a management model that highlights a cultural-historical and social movement, considering its improvements and limitations, at school in opposition to a view that points out management as administration model. One case from a specific school is analyzed in order to understand the praxis involved in a management movement from inside to outside school in order to solve a flood issue. The whole process is based on the theoretical support of Cultural-Historical Activity Theory (Engeström, 1987), focusing on collaborative agency (Miettinen, 2013) as a way to potentiate individuals in a collective movement of overcoming issues from day-to-day inside a school and its surroundings.

The methodological basis of the paper is transformative interventions research (Magalhães, 2006; Engeström, 2011) as a key approach to educational transformation. In a transformative interventionist perspective critical collaboration and language organization are essential in order to empower participants in the educational management activities.

Data are organized in a chain of activities focusing on a specific school and its relation to the broad educational system and the community. A report is produced using two interviews with Pedagogical Coordinators, one interview with teachers, two meetings with community members, teacher' year planning and field notes.

As a result, I discuss how collaboratively agentive movement can contribute to call attention of the authorities to the community and school problems, with the flood taking school to the community and the community to school. Collaborative agency has the potential to contribute to the educational management expansion through activities organized beyond school walls.

Selected references

- Engeström, Y. (1987). *Learning by expanding: An activity-theoretical approach to developmental research*. Helsinki: Orienta-Konsultit.
- Engeström, Y. (2011). From design experiments to formative interventions. *Theory Psychol.*, 21(5), 598-628. doi:10.1177/0959354311419252
- Liberali, F. (2012). Gestão escolar na perspectiva da teoria da atividade sócio-histórico-cultural [School management in the social-historical-cultural activity theory perspective]. In F. Liberali, E. Mateus, & M. C. Damianovic (Eds.), *A teoria da atividade sócio-histórico-cultural e a escola: recriando realidades sociais*. Campinas: Pontes.

Magalhães, M. C. C. (2006). *Intervention research in school contexts for teacher continuing education: critical research of collaboration*. Paper presented at the Language in Action, Jyväskylä.

Miettinen, R. (2013). Creative encounters and collaborative agency in science, technology and innovation. In K. Thomas & J. Chan (Eds.), *Handbook of research on creativity* (pp. 435-449): Edward Elgar Publishing.

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Maria Safronova

Modernization of Teacher Education Programs: from Conflict of Motives towards Reflective Teaching

Keywords: conflict of motives, critical encounter, cultural-historical and activity theory, reflective teacher

Abstract

The paper discusses the development of the collective concept of an educational module in one project team and their engagement as an *initiative actor* (Davydov, 1990) in the reconstruction of teacher education programs. The study was conducted within the federal project of the Restructuring of Teacher Education in the Russian Federation, which included 45 universities. A *conflict of motives* (Vygotsky, 1978) is a crucial moment for the reorganization of the interactions between teacher educators and coordinators in the universities, experienced teachers, researchers, and other stakeholders. A new *common vision* of the future-oriented object of the joint activity emerges as the participants move from resistance to the initiative engagement in the design and implementation of the teacher education programs (Engeström, 2001). *The research question* is: How to engage the university teachers and coordinators in the innovative programs transformation through resolving the conflict of motives? The key contradiction that was solved in the case was the following: activity-oriented preparation of students that presupposes formation of students' professional competences and reflective actions through collaboration between universities and schools vs. preparation of students' focuses on the number of disciplines selected on the basis of a topic. The *critical encounter* (Engeström et al., 2015) will be discussed in a paper in the dynamic of the transition of the stages: observation – resistance – rejection – initiative engagement.

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Extended summary

A federal project concerning the Restructuring of Teacher Education was initiated by the Ministry of Education and Science of the Russian Federation in 2014-2015 and included 44 universities. The project aims at elaborating a new model of teacher training which would fit the requirements of Teacher Professional Standard and State Educational Standards, thus providing new opportunities for graduates of those new teacher education programs to construct their professional paths. As such, it seeks to address the problem of a lack of teacher educators' motivation to change traditional ways of teaching. The introduction of an independent assessment of professional competencies instead of merely assessing subject knowledge challenged the teacher educators to become agents of change.

The study is based on L.S. Vygotsky's cultural-historical theory and the idea of mediation (1978), A.N. Leontiev's activity theory (1978), Y. Engeström's model of interacting activity systems, the theory of expansive learning and formative intervention method "Change Laboratory" (Engeström, 2001), and the organizational activity game.

The study focused on the development of the activity theory application to the mastering the professional tasks in teacher education. In contrast to the learning activity at school, where student masters the learning task (Davydov); student teachers have to master the professional tasks (Margolis, 2014).

A new model of teacher education (Margolis, 2014) was applied in the project based on the assumption that teachers are learning professionals who – besides of being adept in their respective subjects – are trained in concept-formation, problem solving, development of students' higher-order thinking, social skills formation, support for children with specific learning needs and students struggling with learning difficulties. Educational modules of this new model serve as units of key professional tasks (described in the Professional Teacher Standard) which have to be mastered by teacher students in an activity-oriented approach.

The key contradiction was experienced as critical encounter, which according to Engeström et al. (2015, p. 49) is “an event in which two or more relevant actors come together to deal with a problem that represents a potentially shared object and at the same time a conflict of motives”. This critical encounter was solved by the teacher educators by employing a matrix of students' professional competencies as a tool for mediating the elaboration of educational modules, a process resembling Davydov's definition of *reflection* as “the use of consciousness for its own activity that engenders the particular type of generalization that is present in a scientific concept, in the higher forms of human thought” (Davydov, 1990, p.86).

The critical encounter occurred during the intervention sessions with researchers and three project teams for primary school teachers. The sessions comprised two series of meetings of project teams with researchers in 2014 and 2015. Sessions were organized in groups according to specialization. On average 50 teachers participated in a group for primary school teachers. Each series of sessions lasted for 7 hours during four days, 8 sessions were videorecorded. In order to answer the main question of how new instruments and a new practice could be created and implemented, activity system elements (Engeström, 2001) and the resolution of conflict of motives (Vygotsky, 1978) were employed as major lines of analysis.

The question of resolving the conflict of motives caused by the introduction of new programs for teacher education lead to an expansive learning cycle of reflective teaching, starting from a common vision, moving on to a joint construction of tools and finally to the implementation of the new collective concept of the educational module.

References

- Davydov, V.V. (1990). *Types of generalization in instruction: Logical and psychological problems in the structuring of school curricula*. Reston, VA: National Council of Teachers of Mathematics.
- Engeström, Y. (2001). Expansive learning at work: Toward an activity-theoretical reconceptualization. *Journal of Education and Work*, 14(1), 133–156.
- Engeström, Y., Kajamaa, A., Nummijoki, J. (2015). Double stimulation in everyday work: Critical encounters between home care workers and their elderly clients. *Learning, Culture and Social Interaction*, 4, 48–61.

Leontiev, A.N. (1978) *Activity, consciousness, and personality*. Englewood Cliffs, NJ: Prentice-Hall.

Margolis, A.A. (2014). The Requirements for the Modernization of Basic Professional Education Program (BPEP) of Teachers Training in Accordance with the Professional Standard of the Teacher: Proposals for the Implementation of the Activity Approach in Teachers Training. *Psikhologicheskaya nauka i obrazovanie = Psychological Science and Education*, 19(3), pp. 105–126. (In Russ., abstr. in Engl.).

Vygotsky, L. S. (1978) *Mind in Society: The development of Higher Psychological Processes*, Cambridge, MA: Harvard University Press.

Zeichner, K. & Liston, D. (1987). Teaching student teachers to reflect. *Harvard Educational Review*, 57(1), 23–48.

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Yuri Lapshin

Collective agency development through joint concept formation

Keywords: Agency, concept formation, collective activity, contradiction

Abstract

The study investigates a transformation of collective activity concept of a school team carried out in a Moscow's educational school. It was supported by a Change Laboratory formative intervention, involved a representative group of teachers and administrators of the school and was conducted by the author. The transcripts of videotaped sessions and materials produced by the group were analyzed in light of Vygotskian stages of concept formation, described primarily for child's mind development. For CHAT, agency is related both to the ability of the working collective to share the common object and the capacity to transform it. The participants transformed their understanding of the problematic situation into an abstract model of the activity system, ascended to the "germ cell" as the solution of the central contradiction and constructed the whole model of the renewed activity. Vygotsky's stages of concept formation were recognized in schemes and models produced by the group in collective step-by-step process of reconsidering of their activity system. The collective concept formation interrelated with the development of agency of the team: each stage of concept formation helped to overcome contradictions inside the team and re-integrate it. The transfer from «thinking in complex» to «conceptual thinking» by finding mediating metaphors (as "pseudo-concepts») led to the new logical structured concept of the school activity system and the renewal of the team's agency. Using the idea of stages of concept formation can help to plan distinctively the collective discussion as a process of the development of collective mind and agency.

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Extended summary

For CHAT, agency is related both to the ability of a working collective to share the common object (Engeström, 1987) and the capacity to transform it, "when the object/outcome of the activity has been reconceptualized and all the other elements of the system have changed correspondingly" (Virkkunen, 2006). It is also related to the conception of relational agency as "a capacity to work with others to expand the object that one is working on by bringing to bear the sense-making of others" (Edwards, 2007).

The cultural-historical approach to concept formation was developed by Vygotsky in "Thought and Language" (Vygotsky & Kozulin, 1986) and relates to the process of development of individual mind through internalization of speech. Vygotsky experimentally established that the process of concept formation goes through several stages, depending on its logical structure: syncretism image, complex, pseudo-concept. Concepts are comparable by two coordinates: measure of abstractness/concreteness and measure of generality. The paper applies the conception of stages of concept formation to the understanding of collective process of reconsidering of working activity and development of collective agency.

The research was undertaken in an innovative Moscow school which needed to redefine its object and identity. This effort is supported by a Change Laboratory formative intervention (Engeström, 1996) led by author to help school's faculty to renew the concept of the school's educational activity. The intervention comprised sessions, lasting three hours each, with a representative group of teachers and administrative persons (24 of 65 members of the school collective), including the headmaster. A sociometric query was used to secure that also all informal groups within the school community were represented. The sessions were videotaped and transcribed; the materials produced by participants session by session were used for the analysis of their logical structure as it was in the experiment of Vygotsky and Sakharov (Vygotsky, 1986). Discussions of participants and materials produced by them were analyzed in parallel session by session.

The study shows that collective concept formation corresponds to the development of relational agency of team members and transformative agency of the collective itself. The stages of the concept formation, described by Vygotsky for child thinking development, were in the study recognized in step-by-step collective concept formation of the shared object of work activity. The analysis of the materials created by the Change Laboratory group shows that the formation of the shared object of activity runs through the stages of syncretism, complex and concept itself, as described by Vygotsky for the development of child thinking. The transfer from «thinking in complex» to «conceptual thinking» by finding of mediating metaphors (as Vygotskian “pseudo-concepts») reflected the contradictions inside the team and showed to participants a way to overcome them. It led to the new logically structured concept of the school activity system which re-integrated the team.

The application of Vygotskian conception of stages of concept formation, primarily described for child's mind development, to the collective process of co-construction activity can improve the methodology and methods of developmental work research.

Selected Key References:

Engeström Y.(1987). *Learning by expanding: An activity-theoretical approach to developmental research*. Helsinki, Finland: Orienta-Konsultit.

Edwards A.(2007) Relational Agency in Professional Practice: a CHAT analysis. *International Journal of Human Activity*, 1, 1–17.

Engeström, Y., Virkkunen, J., Helle, M., Pihlaja, J., & Poikela, R. (1996). The change laboratory as a tool for transforming work. *Lifelong Learning in Europe*,1(2), 10–17.

Virkkunen, J. (2006). Dilemmas in building shared transformative agency. *@ctivités*, 3(1), pp. 19–43.

Vygotsky, L. S., & Kozulin, A. (1986). *Thought and language*. Cambridge, MA: MIT.

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Martin Kramer

»We don't see things as they are, ...«

Challenging teachers' individual and collective worldviews

Keywords: school development, worldview, ultimate meaning technique, conceptualization

Abstract

Following changes in Austria's educational policies, the transformation of a secondary school into a new school type entails a thorough reconceptualization of how it defines itself. At the same time, this transformation challenges the teachers' self-concepts, and, behind them, their worldviews – how they conceive of and (re)define their roles in light of these changes, and how they consequently also have to rethink their school's self-image as laid down in the collectively agreed upon school's profile. The study at hand is situated in developmental work research that is grounded in cultural-historical activity theory and its methodological implications. Central to this paper is one particular aspect of the study, namely the question of how to make visible the teachers' individual worldviews, and, by analyzing and discussing them with regard to the new educational policies, help the teachers reconceptualize both their and their school's self-view in an authentic way. Ultimate meaning technique (Leontiev, 2007), a special interview technique aiming at revealing structural aspects of the participants' worldviews, was applied in the course of school development conferences. The identified ultimate meaning categories were related to domains of educational purpose, respectively existential dimensions, and as such facilitated the conceptualization of a new school profile, while at the same time fostering a critical reflection of the teachers' worldviews.

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Extended summary

“We don't see things as they are, we see them as we are.”

(Anaïs Nin, cited in Leontiev, 2007, p. 244)

The implementation of new educational policies never takes place in a vacuum: Teacher teams that so far had more or less subjectively and collectively valid and viable definitions of their schools and their own roles within them suddenly find themselves amidst a transformation in which they actively have to rethink and redefine both. This is even more so if the change that is to be brought about is claimed to be a paradigmatic one, as is the case in Austria's presently almost finished transition of lower level secondary schools (students aged 10–14) from hitherto *Hauptschule* (general secondary school) into *Neue Mittelschule* (new secondary school; cf. Austrian education system, 2015).

Along with this reconceptualization, the teachers' individual worldviews – their subjective knowledge of 'how things are' (Leontiev, 2007, p. 246) – are challenged and need to be addressed. Acknowledging the introductory quote, teachers need to become aware of and critically reflect upon their individual worldviews, because they form the bottom line of their educational principles, and thus are also reflected in the collectively laid down school's profile.

The crucial point here is to what extent these worldviews are perceived as malleable and may be transformed in a *horizontal* manner, as *movements between different worldviews or perspectives*, by the teachers themselves (cf. Engeström et al., 2006). The main question thus presents itself twofold, namely (a) how to make visible the teachers' respective worldviews, and (b) how to trigger a dialogue between these expressed worldviews and the newly to-be-defined school profile.

The research project takes place in a small rural Austrian secondary school which is amongst the last currently undergoing the above mentioned transition process, having started with the school year 2015/16. The author is part of the teacher team. The study is situated in developmental work research and utilizes Engeström's (1987/2015) theory of expansive learning and its methodological implications. At the same time, the two dialogically intertwined principles of anchoring and objectification are employed (Marková, 2004; Engeström, R., 2014, p. 123).

Attempting to address the teachers' worldviews, a special interview technique was employed, *Ultimate Meaning Technique* (UMT), developed by D. Leontiev (2007) in order to "make it possible to reconstruct the system of a person's beliefs about the goals and meanings of human life" (p. 243). The partaking teachers conducted UMT interviews in dyads. The identified ultimate meaning categories were analyzed in terms of orientation towards existential dimensions, respectively the domains of educational purpose (Biesta, 2015, pp. 6–9), and utilized as second stimuli within formative interventionist methodology. This visualization pointed out zones of proximal development and fostered both the collective re-objectification of the school activity in the form of a newly defined school profile as well as allowed the teachers to become more reflective with regard to their individual worldviews.

Horizontal movements between different worldviews were facilitated by embedding UMT into an activity-theoretical framework, which opened up new reflective and transformative perspectives. However, as one school representative coined it, "a school cannot be transformed in a fortnight". Neither can worldviews.

Selected references

- Austrian Educational System. (2015). Retrieved from https://www.bmbf.gv.at/schulen/bw/ueberblick/bildungssystemgrafik_2015e.pdf
- Biesta, G. (2015). How Does a Competent Teacher Become a Good Teacher?: On Judgement, Wisdom and Virtuosity in Teaching and Teacher Education. In R. Heilbronn & L. Foreman-Peck (Eds.), *Philosophical Perspectives on Teacher Education* (pp. 1–22). Chichester, UK: John Wiley & Sons.
- Engeström, R. (2014). The Interplay of Developmental and Dialogical Epistemologies. *Outlines. Critical Practice Studies*, 15(2), 119–138.
- Engeström, Y. (2015). *Learning by expanding: an activity-theoretical approach to developmental research* (2nd ed.). New York, NY: Cambridge University Press.
- Engeström, Y., Pasanen, A., Toiviainen, H., & Haavisto, V. (2006). Expansive Learning as Collaborative Concept Formation at Work. In K. Yamazumi, Y. Engeström, & H. Daniels

(Eds.), *New Learning Challenges: Going Beyond the Industrial Age System of School and Work* (pp. 47–77). Osaka, Japan: Kansai University Press.

Leontiev, D. A. (2007). Approaching Worldview Structure with Ultimate Meanings Technique. *Journal of Humanistic Psychology*, 47(2), 243–266.

Marková, I. (2004). Dialogicality of anchoring and objectification. In C. Soares & L. Amâncio (Eds.), *Em torno da psicologia: homenagem a Jorge Correia Jesuíno* (pp. 75–82). Lisboa, Portugal: Livros Horizonte.

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