

Collaboration between research and teaching communities: Implications for teacher education, practice, and policy making

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Abstract: In this paper, we aim to present the process of realization of a partnership between two professional communities in different countries devoted to supporting academic institutions in strengthening relationships between teacher education, educational research, and practice. Based on the current situation in the involved partners (academic institutions training pre-service and in-service teachers, school psychologists as well as researchers in psychology and education), we were facing the need to re-think how educational research, teacher education, and practice could be connected in a more useful and valuable way. In response to this, we tried to foster practice-led research activities in the partner institutions. Since the practice-led research approach is the hallmark of high-performing education systems, teachers, practitioners, and teacher educators need to research their practice, and young researchers should be prepared to foster carrying out practice-led research activities. Such an approach requires having capacities, motivation, confidence, and opportunities to do so. Consequently, the focus on practice-led research orientations needs to be modeled and sustained during the initial teacher education, but also in the context of training young researchers in educational sciences.

Keywords: Collaboration, professional communities, Teacher education

Through the partnership, the involved institutions worked together to reflect what contribution educational research can make to the development of teacher professional education, the broader field of research improvement at

the university level, and the educational practices. In our view, educational and psychological research should be more relevant and devoted to enhancing young researchers' and future teachers' research skills mostly through mixed methods and novel practice-based methodologies.

This need to improve the relevance and applicability of research results to teacher education and practice has been formalized through a model called Research-Education-Practice synergy (REP-synergy) developed by four partners in three countries (the Institute of Education at the University of Tartu, Estonia; the Institute of Psychology at the Faculty of Philosophy and the Teacher Education Faculty at the University of Belgrade, Serbia; and the University of Teacher Education BEJUNE of Biel/Bienne, Switzerland). In this paper, we focus on the concept within which the implementation of different activities has been possible, as well as the major challenges we identified in the specific context of Serbia, in order to reflect about the possible implications at different levels (teacher education, practice, and policy making).

REP-synergy framework

The idea of the integration of research and teacher education (Brew, 2010; McNamara, 2002; Pollard et al., 2008) is of particular interest especially within Eastern European countries currently undergoing the process of social transition in changing education systems, policies, and practices of research education (Buđevac, Jošić, Radišić, & Baucal, 2015; Stanković, Radišić, Buđevac, & Baucal, 2015). With regards to the partnership referred to in this paper, this is the case both in Serbia and Estonia. In this paper, we will focus on the experience related to Serbia, in which the education system is struggling with the change from an education system mainly focused on the transmission of general knowledge and with a strong academic orientation to an education system focused on the learning and development of key educational and professional competencies (Pantić, 2009; Pavlović Babić & Baucal, 2013).

In Serbia, the goal is to enable young people to participate in the educational enterprise successfully and to plan proper professional careers. From the teachers' perspective, there is a strong need to be trained in practice-led research in order to use research results to improve professional practices (Brookfield, 1995; Korthagen, 2004; Loughran, Mitchell, & Mitchell, 2002). The analysis of pre-service and in-service teacher training programs in Serbia has

shown that the existing research evidence is not relevant enough, or not at all, for practitioners and educators of future teachers. The challenge is even more significant in the context of an ongoing broader education reform, which is oriented towards supporting evidence-based policies and developing more reflective practitioners. For this reason, through the present project, we intend to support a direct collaboration between young researchers, mainly educated in the field of psychology, and (future) teachers in Serbia. We identified the following goals as specific to our partnership: to improve the understanding of participants' needs for research evidence and to develop their capacities to design and conduct research studies connected to the educational practice and practitioners; to establish a scientific network between young researchers, practitioners, and teacher educators. In the long-term perspective, we intend to empower their professional capacities by balancing theoretical and practical components of education, as well as to encourage an autonomous engagement in working with colleagues in other institutions and research communities.

The paradigm we have considered in the construction of our partnership emphasizes that educational research should not be relevant only for the academic community, but they need to be more relevant for policy makers and practitioners and, consequently, should be contextualized in the actual realities of the abovementioned country. In order to realize this, our idea has been to enhance young researchers' and future teachers' research skills, mostly related to methods and research epistemologies in order to build a fruitful collaboration and to promote synergies within the country. As we have indicated, it is vital to support the partners in overcoming the difficulties in the transition from a traditional education system focused on the transmission of knowledge to a system based on learning and development of key competencies. This transition is a complex social process requiring good collaboration between policymakers, researchers, and practitioners in education. We are convinced that it is possible to create significant opportunities for academic Serbian institutions in different ways. In fact, we are aware that many countries of Eastern Europe (including Serbia) are currently going through a comprehensive process of overcoming difficulties related to the institutional framework conditions, as a starting point to promote new synergies with Western countries (such as Switzerland). In this endeavour, we intend to connect internal factors, such as strengths and weaknesses of the Serbian institutions, and external aspects, such as opportunities and threats present in the environment of the Institute

of Psychology at the Faculty of Philosophy and the Teacher Education Faculty at the University of Belgrade.

These two institutions are pursuing alignment with contemporary trends in European academic and research areas in order to tend to high standards of academic excellence. The Institute of Psychology has a long tradition and expertise in international and national research studies about educational achievements of students and different aspects of educational processes. There is a strong research expertise in designing research studies, implementation of big research studies, and in the application of complex models of quantitative analysis of big datasets from educational studies. Moreover, the institute is also experienced in collaboration with policy makers in the education field. However, there is recognition within the institute that there is a need to increase its capacities in qualitative research methodology, to become more involved and more relevant for initial teacher education as well as for improvement of teaching/learning practices in the school context.

The Teacher Education Faculty - the youngest faculty within the University of Belgrade, it was established 25 years ago - educates preschool and primary school teachers and supports the development of future researchers through different initiatives. However, research capacities seem to be not adequate at this moment, because within the curricula the presence of content relevant for scientific work does not meet the needs of future teachers and researchers. As a result, students need substantial support to improve their research capacities and competencies while doing their master and doctoral theses as well as in their further research projects.

The most serious threat is related to the lack of culture of cooperation between policy makers, researchers and practitioners. The goal of the above mentioned institutions is to recognize new trends and challenges in education field, especially the need to strengthen collaboration in education practice, by taking as strategic priorities for improvement the following elements: to develop capacities of young researchers (PhD and post-doc students) in qualitative methodologies to complement already existing capacities in quantitative methodologies; to improve relevancy of future research projects for educational practice and school improvement; to improve collaboration between researchers and pre-service and in-service teachers; and to extend the network of international teaching and research institutions that

collaborate with the institutions. These aspects have been considered as relevant because the quantitative approach has been traditionally dominant (resulting in a good training of young researchers in quantitative methodology and neglecting new trends related to the qualitative turn), and also because there were opportunities to collaborate with foreign researchers. Consequently, a strategic priority of the institutions is to provide opportunities for young researchers to develop skills in different methodologies and to build the collaboration with researchers from other countries in order to contribute to overcoming the difficulties connected to the transition from a highly centralized, traditional education (focusing on the transmission of academic knowledge) to a decentralized system (focusing on teaching/learning and the development of key competencies). This transition can create new opportunities to establish a productive collaboration between researchers and pre-service and in-service teachers; however, it requires the appropriation of new modes of collaboration and making research knowledge relevant for educational practices.

We are aware that (future) practitioners (teachers and school psychologists) and young researchers are entitled to work in a research environment that supports the development of their research literacy and offers access to facilities and resources for a sustained engagement with and in research. However, as we have observed in the realities of the target institutions, (future) practitioners and young researchers have neither up-to-date equipment nor multiple opportunities to balance theoretical and practical components of education and engage autonomously in collaborating with colleagues in other institutions and countries (and with the members of the broader research community). For this reason, we have established an institutional partnership between the University of Teacher Education BEJUNE (Biel/Bienne, Switzerland) and two Eastern European institutions that have encountered such situations in their process of transition during the last decades.

Consequently, we have implemented a three-year collaborative program for the development of teacher education, research, and preparation for professional practice, as well as the management of the research culture within institutions. This partnership has been modeled around a series of activities that are briefly presented in the next section of this paper.

Implementation of REP-synergy

In order to reach our aims, we organized different activities, such as workshops and training sessions, using diverse methodologies (qualitative, quantitative, and mixed) for pre- and in-service teachers and young researchers. This approach contributed to building the capacities for practice-led research and the use of research results to improve professional practices. We also supported the improvement of institutional capacities that enable a further increase in the research performed in the partner contexts. Besides providing the training related to scientific approaches and research methods, we emphasized the role of disseminating research results and their implications for practice. Through the institutional partnerships, we also supported staff and student mobility (through short visits and joint teaching activities) in order to foster the collaboration between the partner institutions and provide additional opportunities for the professional development of the academic staff and students.

The expertise of the different partners was combined to offer various methodological and epistemological topics for teachers (both future teachers and experienced teachers) and young researchers. A three-year program was proposed and jointly implemented as a way to improve the understanding of the place of practice-led research in education and the relationship between teachers, teacher education, and educational research in Serbia. In this way, the partner institutions were in the position to reflect on how to significantly change the education sector and support the development of key competencies of new generations of citizens who can ensure the sustainability of more substantial changes accomplished through previous processes of societal and economic transition.

In order to implement our program, different joint activities were organized and conducted in the participant countries: meetings, different workshops, and training sessions in qualitative, quantitative, and mixed methodologies designed for educational practitioners, future teachers, and young researchers. In particular, we identified two main lines of activities: the first one aimed to build the capacities of current and future practitioners (teachers and school psychologists) to design and implement practice-based research approaches and to use findings for reflection and improvement of their teaching practice; the second line was developed to reinforce the capacities of Ph.D. students in educational sciences to do research as well as to use research evidence to support teachers, school leaders, and policy makers. The

proposed first line included practitioners – classroom teachers, school psychologists, students in preparation to become teachers (initial teacher education), and Ph.D. students in educational sciences. The second line included only the latter group.

In the first line, the general goal of the package of workshops was the development of competencies of future teachers and in-service teachers for practice-based research and the use of its results for the sake of practice improvement. More specifically, we focused on providing training and support to practitioners (current and future) in order to foster their knowledge and understanding in different domains concerning the role of practice-based research in the improvement of teaching and learning, its logic and use in concrete situations, different types of research designs, data collection and analysis techniques, interpretation of findings, and presentation of research for the purpose of its dissemination.

The package of workshops for the second line was devoted to developing the knowledge and skills necessary for scientific practice-led research. It included several activities connected to different domains, such as the role of scientific research in the improvement of teaching and learning, the logic of scientific research and different types of research design, different data treatment techniques, and the improvement of academic writing skills and presentation of research for the purpose of its dissemination with other researchers but also with practitioners and policy makers.

Major outcomes and challenges

During the period of three years, the collaboration between the participants from different institutions has resulted in more than 50 papers presented at different conferences (e.g., Arcidiacono, Leijen, Buđevac, & Baucal, 2016; Baucal, Arcidiacono, Leijen, & Buđevac, 2017; Baucal, Arcidiacono, Pavlović Babić, Buđevac, & Blagdanić, 2017; Pavlović Babić, Baucal, Arcidiacono, Buđevac, & Blagdanić, 2018). At the end of the third year of the project, an invited symposium (Arcidiacono, Baucal, Pavlović Babić, Blagdanić, & Buđevac, 2018) was organized at the International Conference TEERM 2018 that was held in La Valletta (Malta). At the conference, project participants from two partner institutions from Serbia presented their practice-led researches and took part in a joint discussion about the obstacles and opportunities in collaboration between educational researchers, teacher educators, and educational practitioners. In addition to the presentations at

national and international conferences, the collaboration within the project also resulted in 10 papers published in peer-reviewed journals that are directly related to the project activities (e.g., in a special issue edited by Buđevac, Arcidiacono, & Baucal, 2015) and 10 publications indirectly related or inspired by the project activities or collaboration established within the project (e.g., Buđevac, Arcidiacono, & Baucal, 2017).

By working together on the preparation and implementation of project activities, preparations for joint participation at conferences, and writing joint publications, the project has managed to contribute to the fulfillment of the main project goals. Firstly, the collaboration between the participants from different institutions has contributed to a better understanding of their perspectives, similarities, and differences. For example, at the very beginning of the project implementation, it was revealed that the participants from the Institute of Psychology and those from the Teacher Education Faculty have somewhat different interests when it comes to studying teaching/learning processes and key actors involved in the classroom activities. The participants from the Institute of Psychology were more interested in the students, student learning, and factors related to the student learning and student achievements, while the participants from the Teacher Education Faculty were more focused on the curriculum issues, teachers, and the different ways in which they teach specific topics. It took some time for all the participants to understand the reasons behind these interests and how they might be seen as complementary rather than opposite perspectives. Joint activities and discussions about these different perspectives have provided an opportunity for the participants to address these two perspectives and to identify their strengths and weaknesses. Moreover, the project supported the participants from these different institutions to work together in smaller teams and to try to jointly develop a research framework and research questions that might be meaningful from both perspectives. Although in some cases, this approach resulted in interesting research projects based on common ground, in some other cases, the participants realized it would be rather difficult. In such cases, they developed two different projects but continued to collaborate with the intention to benefit from their different perspectives. Even in such cases, the project managed to lead to a better understanding between the participants from different institutions as well as to mutual respect for their differences. We consider this as a kind of success because we believe that this new mutual understanding, even when it did not result in a joint project, might be a solid foundation for future collaboration.

Although the project has managed to produce many outcomes and to support overcoming some of the professional divides, nevertheless, the implementation of project activities has provided an opportunity to identify some important mutually related challenges that could prevent a productive collaboration between researchers, teacher educators, and teachers.

A significant challenge is related to the fact that researchers in educational sciences, teacher educators, and educational practitioners belong to different communities of practices. Educational researchers are typically engaged in big research projects within institutions that are oriented toward generalized findings about the teaching/learning process and educational outcomes, which was also the case in this project. In most cases, project researchers tend to formulate general research questions (e.g., *What student factors are related to their outcomes?* or *How is student motivation related to their achievements?*). Moreover, since project researchers have been mostly trained as psychologists, their interests were related to the student level, while school and teacher related characteristics, as well as curriculum issues, were treated as factors that might affect students, their motivation, learning, and outcomes. On the other hand, project participants, who were more involved in teacher education, have been trained in specific subject areas. Consequently, they were more interested in the curriculum issues as well as how to teach specific topics to students in specific grades.

As had been noted earlier, the participants from the two communities have been educated in different ways. While the psychologists have been trained in general and educational psychology with strong training in quantitative research methodology and complex data analysis models, teacher educators have, in most cases, been educated as specialists in specific disciplines (e.g., math, language and literature, art, etc.). In most cases, teacher educators did not have enough opportunities in their initial education to develop the competencies related to research methodology and data analysis, especially those related to the quantitative approach. These differences in terms of the initial education of project participants have contributed to their divide and made their collaboration difficult.

Finally, previous challenges are also related to the third one. The two communities of participants were oriented toward different publications, scientific journals, and conferences. While we had been aware of previous

challenges during the project preparation phase, this third challenge emerged as a surprise from the beginning of the project and our effort to support participants in developing and implementing joint practice-led research projects. Keeping in mind that researchers in Serbia have been experiencing increased pressure to publish in peer-reviewed journals, they are becoming more focused on future publications when they participate in projects. Moreover, the two different communities are oriented toward different kinds of scientific papers as well as different kinds of peer-reviewed journals. It proved to be difficult for project teams consisted of participants from different communities to identify journals that could meet the interest of both communities. In some cases, this even hampered the development of potential research project opportunities and the continuation of collaboration.

Conclusion

Many arguments lead to the conclusion that researchers, even when working in the field of education, and teachers make up two different professional communities separated by a kind of “great divide.” They have different interests – while researchers are more interested in the psychological process (motivation, the process of learning, etc.), practitioners are interested in the content (disciplinary knowledge and teaching). For the first group, the focus is on relatively general models and testing current models developed within educational psychology; for the second group, the focus is on the transmission of academic knowledge from specific disciplines. Also, they do not share the same identity since they have been educated in different, mutually independent academic tracks. A strong instrument that prevents different communities from collaborating is the policy related to career development in different institutions (e.g., publishing papers in specific journals). The existence of this divide is one of the findings of the analysis of data collected by questionnaires administered to the participants at the beginning of the project, which also became noticeable in the process of project implementation since there was a lack of shared understanding and identification of topics and goals relevant to the teaching-learning process. In addition, it is not unwarranted to conclude that Serbia is not the only country that faces the divide between these two professional communities. Discussions with colleagues, especially at international conferences, have consistently indicated that other education systems share the same challenge and the same need for a stronger collaboration between researchers, teacher educators, and teachers.

The process of project implementation, as well as its products, has shown that it is possible to overcome these identity boundaries despite the fact that it is related to various challenges. Within this project, we have used the following tools to support the participants in creating a shared understanding and collaborative work: setting the situation so that it requires cooperation within small groups (dyads or triads); defining the common goals including the predetermined time dynamics and deadlines; ensuring joint trainings for the participants belonging to different communities; and, probably the most important tool, providing a supportive setting and continuous scaffolding/mentoring for a productive collaboration between the members of different communities.

However, we are aware that these effects were achieved under conditions that are very particular (e.g., a relatively small number of participants and a quite long period). We are convinced that boundaries between different communities could be weakened through a positive personal experience in collaboration, although this is far from enough. Boundaries should be weakened not only at the personal, but also at the institutional level as well. For example, this should be done through common courses for students belonging to different institutions, in order to create the spaces and the conditions to share practices, to engage in collaborative work, to realize joint research projects, and to create other forms of formal institutional cooperation.

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