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**ACTION RESEARCH FOR CREATING NETWORKS IN
PEDAGOGICAL PRACTICE**

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Abstract

At present Latvian education system is in the process of shifting towards a competence-based approach that requires a change of attitudes and ways of thinking and acting. Action research can become as one of the most powerful methodologies for supporting the desired policy changes and contributing to the increased reflection, questioning and rethinking of existing practices, thus enabling all participants involved in the research to make wise educational judgements about what should be done to bring research results to life through the reality of practices. The aim is to investigate the possibilities of creating collaborative networks by supporting the ways of extending research-based practice and professional competence in the field of education. The research question is: How can action research be employed as a tool for improving pedagogical practice in the context of change? Qualitative content analysis of selected action research studies is employed as a method for examining the written data. Research sample – 45 practitioners involved in the teachers' continuous professional development programme "Pedagogy" implemented at Liepaja University. The findings raise considerations of strategies for strengthening existing collaboration networks and ensuring the development of research networks in the field of education. The study points to the need to extend the reflective competence in the profile of the teaching profession.

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1. Introduction

The processes of globalization demand changes not only in economy, politics and society but also poses new challenges in the field of education that is one of the most important factors for the growth, competitiveness and sustainability (Education Policy Outlook: Latvia, 2017; Guidelines for the Development of Education for 2014-2020, 2013; Sustainable Development Strategy of Latvia until 2030, 2013). Currently, the Latvian education system is implementing the shift towards a competence approach that requires a change of attitudes and ways of thinking and acting. The aim for the competence approach is to raise the quality of education and implement the content reform of general education, thus promoting the competitiveness of education in the local and global context (Skola2030, 2018).

Competence development involves in-depth learning - the process by which a student develops the ability to generalize, transfer new knowledge and skills to unknown situations, focusing on the processes by which we acquire knowledge. By implementing a pedagogical approach that drives in-depth learning, teachers enable to develop high-level thinking skills, so that students can construct the meaning and use experience in solving complex tasks in new situations and contexts (Olina et al., 2018; Purens, 2017). In school practice, it is necessary to ensure that the work of each teacher in the classroom is focused on immersion, therefore action research can become as one of the most powerful tools for supporting the desired changes in education. It contributes to the development of reflective competence by questioning and rethinking of existing pedagogical practices and enables all the participants involved to collaborate and bring the research results to life.

2. Problem Statement

One of the main objectives in the ongoing reform of the education system towards a contemporary competence-based education is to bridge the gap between the theory and practice by involving teachers-practitioners in the educational research, as well as regular communication of research outcomes. Due to the dual nature of action research – a research method and a strategy for creating new knowledge, it is regarded as a great tool for uniting theory and practice as it requires identification of a problematic issue, participation, and immediate action. Moreover, action research is regarded as a model of collaborative learning (Boss, 2020).

The implementation of competence-based approach raises questions about conceptually new requirements for teachers' professional competence to support students and guide them through the opportunities for knowledge and skills development, as well as build attitudes necessary for life in the 21st century. Action research as a participative, self-reflective, collaborative, situation-based, and context-specific activity offers to assume the responsibility for being the agent and source of change. Its basic principles include (1) reviewing one's current practice by questioning the assumptions and values that are often overlooked, (2) finding an issue or situation that needs to be changed, (3) developing actions to try out possible solution/-s and interpret the consequences, (4) evaluating and/or adapting the new practice (Altrichter et al., 2007; Ferrance, 2000; McNiff, 2017; Revai, 2020).

In this context, the professional skill of reflection becomes of the utmost importance. It includes reflection-in-action taking place during the action process (Schön, 1987) and reflection-for-action that means thinking of improving or changing the practice (Farrel, 2013; Olteanu, 2016). Thus, reflection helps to review the practice and identify possible strategies to apply in their pedagogical activity.

Another significant component of the action research is a skill to collaborate. Regardless of which type of the action research we choose – individual, collaborative, school-wide or district-wide action research (Ferrance, 2000), collaboration and networking are necessary to achieve results, thus examining teaching styles and instructional strategies and sharing the results with others. Networks are understood as inter-organizational partnerships between schools or professional learning networks for teachers. Developed connections between the teachers, schools and other professionals help to understand how knowledge is generated and transformed into a joint creation of innovations. Networks may bring together stakeholders from different sectors or different levels of the education system and serve as a platform to explore new policies and pedagogical ideas (Networks for learning and development across school education, 2018; Revai, 2020).

Action research can serve as the means of creating research networks within the community with the focus on knowledge exchange, as well as skills and resources, that shapes teachers' professional identity, new developments and trends within the field of education, and practices that improve and encourage the professional development (McCormick et al., 2010; Networks for learning and development across school education, 2018). It is in line with the idea that the meaningful research process provides the outcomes for the mutual benefit of all actors involved and can be ensured by collaboration, flexible networking, sharing experiences, providing feedback and personal self-reflection (Pavitola et al., 2016).

Therefore, considering the findings of the theoretical study, it is proposed that action research can be a powerful tool for generating, testing, sharing and implementing new ideas and knowledge in educational contexts by building professional networks for teacher collaboration, fostering the culture of research and inquiry, and progressing from reflection-in towards reflection-for action.

3. Research Questions

- How can action research be employed as a tool for improving pedagogical practice in the context of change?

4. Purpose of the Study

The research aims to investigate the possibilities of creating collaborative networks by supporting the ways of extending research-based practice and professional competence in the field of education.

The research basis for this study is the teachers' continuous professional development programme "Pedagogy" implemented at the Liepaja University (further LiepU) and 45 respondents who mastered the programme in 2019/2020 - the teachers of different professional qualifications and seniority levels representing a different kind of formal and non-formal educational institutions. As part of the programme,

the topicalities in pedagogy, psychology and educational sciences are revealed by integrating practical aspects and assessment of theoretical knowledge, analysis and presentation of good-practice examples, as well as acquiring a practical teamwork experience. During the study process, the teachers are assigned to conduct action research on the topic significant for their professional practice, exploring the chosen issue from pedagogical and, possibly, psychological perspective, stressing the collaborative aspect and ensuring feedback. Also, the quality of the planned results and their potential to be implemented into practice is considered of great significance.

5. Research Methods

- The qualitative research design based on a social constructivism perspective is applied to the study to promote the collaboration between the researchers and the respondents, as well as define problems and find solutions.
- Case study as a research strategy is used to examine in-depth the potential of action research carried out by practitioners, as well as its related contextual conditions leading to the improvement of pedagogical practice in the frame of competence-based approach.
- The qualitative content analysis of selected action research studies is employed as a method for examining the written data.

6. Findings

The theoretical and empirical findings reveal the essence of the action research and its use to create personal knowledge, as well as deepen the understanding of action research participants about the research object, scope and outcomes and the opportunities for collaborative learning and networking.

The analysis of research findings is based on the criteria of action research with the emphasis on reflection-for-action (Altrichter et al., 2007; Farrel, 2013; Ferrance, 2000; McCormick et al., 2010; McNiff, 2017; Olteanu, 2016) and reveal the following skills of the respondents:

- to define the aspects that require improvement in their pedagogical practice;
- to collaborate with the colleagues and build networks school-wide and/or district-wide;
- to develop strategies for implementation of findings in the pedagogical practice.

The research data will be summarized and analysed following these three criteria:

6.1. To define the aspects that require improvement in their pedagogical practice

The action research studies chosen for this article imply a very diverse spectrum of topics, looking at pedagogical issues concerning learners of different age groups and levels (preschool, primary, secondary, vocational education, continuous professional development, including special education), and various learning subjects. To illustrate the diversity of the problem issues explored in the respondents'

action research studies, some topics are named: helping the learners to focus attention in class, dealing with aggressive behaviour of teenagers, the methods of cooperative learning in Russian language classes, pedagogical assistance to meaningful use of spare time during summer holidays, sustainable development of distance-learning, the impact of influencers and social networks in the acquisition of make-up artist's profession, the effect of warm sand therapy on the child's body, effectiveness of learning in mixed age groups and groups according to the pupil's level of knowledge, different aspects of motivation, the role of psycho-hygiene in the learning process of children with ADHD, and others.

The personal significance of the chosen topics is revealed by the statement like: *“My topic (creation of positive first impression when working with learners) is topical for me, personally, as I don't have a pedagogical experience yet, but I will be able to use the knowledge obtained during this research process in my future work as a teacher and develop a successful communication with my pupils.”* Several students emphasize the need to learn from examples of good practice.

Although some students had struggled with formulating of the research question that reaches the essence of the study, but overall the research questions put forward also revealed a wide spectrum of problem issues. Here are some examples: how to involve a child in the activities, if the child is brought to the class against his/her wishes; how can the knowledge acquired in the lessons of informatics be applied in other learning subjects; how the five-step active reading strategy can improve knowledge in Latvian Geography, etc., just to mention a few.

The analysis of the data obtained allows suggesting that action research truly can be a very useful and practical method for defining the problem issues in educational practice related also to one's own experience, and for exploring these issues in-depth hand in hand with self-reflection.

6.2. To collaborate with the colleagues and build networks school-wide and/or district-wide

Although the aspect of collaboration, and especially the network building, in several cases, was not described explicitly, in the research papers it appears on various levels, acknowledging the need for collaboration with students' parents, other colleagues and specialists, institutions, and community.

Describing collaboration with parents, the emphasis mostly is on activities for achieving higher learning outcomes: *“In my violin lessons, I also educate the parents together with the child. Parents are interested in the success of the child, they want their child to perform in concerts, attend contests but the teacher alone cannot achieve this. This must be a joint activity – child, teacher and parents”* or *“I need to find the ways how to promote the collaboration between the class teacher and parents, and the main principles are systematic activities and interest of all parties involved in reaching the goals of cooperative learning”*. A sports teacher/football coach commented: *“I decided on my research topic to help to solve a topical problem for the school – inactivity of parents when parents do not cooperate with the school and coaches, are not interested in their child's achievements, and do not create conditions needed for children to improve their abilities. Only when parents get actively involved, the absence of trainings or change of the type of sports (looking where it is easier) can be addressed”*. *“To develop a successful collaboration with the parents, the class teacher must use various collaboration forms and methods. The wider is the spectrum of the methods used, the better the teacher gets to know the pupils and their parents, and as the result, he/she can better help the families”*.

Here are some examples illustrating the expressed need for collaboration with local businesses, institutions and involvement in the community: *“In our school, the museum-lessons are a new thing, but it must be continued. It helps to stay in tune with social processes and developments that take place in our local community”*; *“It is important to take place in local social activities for educational purposes”* and *“To make lessons more interesting, the excursions to the vegetable-growing farms are necessary – to see the machinery they use and how they store the fruit and vegetables”*. It is evident that the suggestions for collaboration are not very explicit, but in tune with the chosen research topic.

Also mentioned was the need for collaboration with colleagues and other professionals: *“The competence-based approach implies the need for collaboration and information exchange between the colleagues”* and *“The developed assessment criteria for sports classes will be offered also to other colleagues for the perfection of the assessment system”*. Some of the respondents were very clear about the necessary strategical steps to be taken, for example, *“It is necessary to improve collaboration with primary school class teachers, teacher of natural sciences and the teacher of interest group of natural sciences to understand the possibilities and to promote the research skills of the pupils”* (for the topic: Using the insect-hotels for learning natural sciences).

Unfortunately, relatively rarely did the respondents mention the collaboration with other children: *“The best way is to organize different events together with children and teenagers of other districts – we seriously need to work on it* (topic: Bike-riding and improvement of local community environment). Although some cases expressed the need to develop district-wide networks in the sphere of vocational education, it was not implemented as there exists a competition between the schools and each school encourages the students to attend their particular educational establishment, thus no collaboration takes place. This situation represents a real challenge for us as researchers and teacher educators.

Unfortunately, there were no cases that mentioned collaboration with higher education institutions and national educational offices, which raises some important questions for us as teacher educators for further discussion and research. Overall, it can be concluded that in the research papers the collaboration and networking possibilities are not explored sufficiently.

6.3. To develop strategies for implementation of findings in the pedagogical practice

This is the area where students have struggled the most, mainly offering some recommendations (not strategies) for perfecting the pedagogical practice. Their suggestions are mostly realistic, possible to implement in practice. For example: *“The findings of the gaps in digital competences of Ventspils preschool teachers will be taken into account when elaborating the further education programme in Ventspils Digital Centre to promote the professional growth of preschool teachers”*; *“There is a need to organize the Open-door days or events, where participants can try out different activities and choose the one that is the most suitable”*; *“The individual conversations can be carried out with the parents of a child, who does not want to participate in the group”*; *“Developing strict assessment criteria for sports lessons in each stage of development would make the sports lessons more interesting and productive, as the goal is one – to master the joy of movement not limiting oneself to the normative”* and many others.

Although the problem-solving recommendations often did not reach the core of the problem, and they could be deeper, more detailed and show more pedagogical and psychological knowledge, the

benefit of the action research shines through the studies performed by the respondents. It is therefore a matter of concern for us that we provide support for teachers-practitioners as researchers and teacher educators. This research also allowed us, the teacher educators, to look for ways to improve our practice when introducing the students to action research and leading them through their studies. These ideas will be summarised in the conclusions.

7. Conclusion

The findings of the theoretical and empirical study reveal that action research might be a way to link educational research and teaching practice aiming at promoting professional competence in teaching, improving pedagogical practice and extending the knowledge based on teaching and learning. Participants of action research start to notice significant changes in their understanding of student learning, their teaching and the educational context. It is confirmed by instructional strategies and the project-based approach that there is a need to meet the students' learning needs helping them to develop transversal skills like collaboration and creativity. Teachers begin to apply different perspectives on teaching and find alternative solutions for educational challenges.

Although action research usually involves the development of teachers, principals, schools, and even school systems, as well as provides an opportunity for informed discussion and a discussion forum for the dissemination of research outcomes, this empirical study certifies that this is not a common practice and it is done only in particular cases. Several action research papers pointed to different general and overall issues in the field of education, without the willingness to explore this issue to improve pedagogical practice and suggest possible solutions. Only a few respondents tried to involve their colleagues, engage in discussions with the professionals of the field and develop wider collaborative networks.

The findings have helped to reflect on and critically evaluate the action research experiences, consider the advantages and identify some of the main challenges. The authors of the article hold a strong commitment to the importance of the research-for-action that could serve as the grounds for improving the understanding of teachers about the essence of action research.

The study confirms the necessary steps to be taken to employ action research as a tool for improving pedagogical practice in the context of change:

- Raise awareness and understanding about the benefits of action research particularly in teacher education;
- Develop reflective competence of teachers that would allow reflecting more deeply on their teaching as well as the teaching of their colleagues;
- Create collaborative networks, for example, school-university networks aiming towards the integration of research-based knowledge and practice, thus contributing to improving education and enhancing student achievement.

The findings raise considerations of strategies for strengthening and extending existing collaboration networks and creating new ones and empowering teachers to develop their reflective competence in the profile of the teaching profession.

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