Action Research as a Form of Teacher Professional Development

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Abstract

This paper is about the perception of student teachers concerning their role as researchers and the impact of action research in their professional development. This paper is a product of joint collaboration with master-level student teachers of the Faculty of Education of the University of Prishtina. Qualitative data collected through reflective writings, open-ended questionnaires and various research project reports implemented by student teachers themselves were analyzed using inductive methods.

Findings support the fact that action research is a major component in teacher professional development. According to teacher-researchers, action research has a major impact not only on the improvement of teaching practices and better student achievements, but also on increasing the collaboration among peer teachers and fostering a new culture where teachers assume their responsibilities to implement action research in their own classrooms.

Key terms: Action research, professional development, student teacher, critical friends

Introduction

Kosova's education system underwent several reforms in order to be in line with social, cultural and political developments. Along ongoing changes in education policies, special attention was paid to development of education programs for *quality teachers* in line with common European principles for teachers' competencies and their qualifications[2]. In this context, Faculty of Education of the University of Prishtina developed, for the first time in 2010, two master-level programs focused on developing educational experts in curriculum and leadership[3]. One of the main program components is action research based on student-teachers' professional practice[4]. Preparing researchers in the field of education, as one of the objectives of these two programs, and use of research for teaching

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4. *Student teachers are master level students, who are also in-service teachers at the same time.*

and learning through teachers' own experiences and practices, in particular, is crucial to the professional evaluation of teacher's teaching practice and their qualifications (Darling-Hammond 2000; White et al. 2011, Lin et al. 2011). Use of such research improves educational practices and teacher professional development, and serves as a 'management tool' to provide solutions for various problems (McNif 1997, Hopkins 2002, Stringer 2004, McNiff and Whitehead 2009, Koshy 2010, Sagor 2010).

Studies related to classroom-based research are limited in Kosova. Therefore, this paper is about the perception of student teachers on changing their professional practice based on classroom-based research in order to meet students' needs. The focus is on two crucial aspects: professional reflection and research-based practices (Schmuck, 2009).

Literature Review

Action Research

Action research is a systematic inquiry and a self-reflection process, which intentionally integrates into changing processes making people examine their own problems in order to find a proper solution and improve their practices (Stringer 2004, Patton 2002, McNiff and Whitehead 2009). Action research challenges traditional researchers' views and positivist approaches according to which knowledge on social phenomena are valid only when observed, evaluated and measured. Different from prevailing logics and objectivism, action research considers emotions, intuitions, creativity and change of state. Thus, the meaning of knowledge is embedded in social construction and research occurs within a system of values, which promotes human interaction (Johnson 2002, Miller et al. 2003). While in traditional research, the researcher himself is independent of data and has no influence in them, the researcher in action research, on the other hand, is part of the phenomenon being investigated. In general, action research is considered a methodology, which enables teachers to engage personally in joint practical activities to change and reexamine their knowledge and the learning of their students through descriptive reports, intentional conversations, peer discussions and critical reflections (Miller and Pine, 1990, Wilson, 2009, Mcniff and Whitehead, 2010, Koshy, 2010). Reflection is of primary importance in action research since the researcher him/herself is concurrently participant and implementer (Cohen at al, 2010) in all phases of his/her classroom-based research. Therefore, David Hopkins prefers the term "*Classroom research by teachers*" over the term "*Action research*". In addition, he states that "Undertaking research in their own classrooms is one way in which teachers can take increased responsibility for their actions and create a more energetic and dynamic environment in which teaching and learning can occur" (Hopkins, 1985: 2). In general, action research or classroom research can be defined as the "systematic, intentional inquiry by teachers" (Cohran-Smith & Lytle, 1993: 51). Action research is often considered as a 'soft' form of inquiry, which serves not only to advance educational policies, curriculum development, increase of school performance and education in general, but it has also a great influence to the advancement and professional and personal development of teachers. Besides individual research conducted by teachers during the last two decades around the world, *collaborative action research* has received an increased popularity (Sagor, 2010, Zeichner 2006), especially amongst universities. In this type of research, there is collaboration between university professors who are considered as helpers of the process and schoolteachers where the actual research takes place. Thus, Zeichner (2003) stated that most research work in which universities and teachers

collaborated had changed the curriculum approach from a standardized-based one into a curriculum based on pedagogical concepts directed by the teachers themselves. From this perspective, curriculum 'theorization' is not the implementation of theory taught at universities, but it is a process generated from efforts to change curriculum practices.

Action research can be defined as study process of a real situation in classroom or school to understand and improve the quality of activities or teaching practice (Johnson, 2008). Therefore, action research is considered to be of a practical nature. According to Koshy (2010), "action research is a constructive inquiry in which the researcher constructs his/her knowledge on specific issues through planning, action, evaluation, refining and learning from experience' (p. 9).

Action research and Teacher Professional Development

The new paradigm for teacher professional development recognizes that decisions by curriculum developer are deeply rooted on their knowledge and beliefs about change. Therefore, their theories affect they way teachers teach (Stein at al, 1999). Traditionally, teacher professional development programs have been developed and conducted by experts and academic researchers through workshops, university level courses and in-service training programs. However, professional development is not seminars and courses; it is rather development of learning habits that occur day after day (Fullan 2001); it is a teachers' engagement "in an ongoing process of inquiry, where they deal with skepticism and values which compose the basis of their practice" (Oakes & Lipton 2003, p. 379). In fact, "conclusive fact about education science were not found in books, neither in experimental labs, nor in classroom where we teach and learn, but in our minds which are engaged in guiding educational activities" (Dewey, 1929, p. 32). Consequently, in order to meet teachers' needs effectively, their professional development, including their teaching practice, should focus on their thinking and students' learning (Whitcomb, Borko and Liston 2009). This is one of the reasons why teachers today throughout the world are encouraged to engage in individual research or in collaboration with their peers in classrooms and schools where they teach in order to find solutions to problems they face in their everyday life. In the past decade, most of the studies were focused on benefits of such an engagement. Thus, teachers' participation in research helps them to be more 'changeable' and more open towards new ideas and external authorities (Schmuck, 2009), to be more active and have more confidence on their own to cope with difficult situation that may arise during their teaching experience (Zeichner 2003), to be more creative and face unknown solutions and challenges as a result of experimentation, discovery and modification (Sagor, 2010). In many cases, teacher professional development processes conducted by teachers themselves have been studied. According to teachers, their experience in action research has completely changed their views on students' learning by challenging their actual knowledge they had on teaching and learning (Megwan 2010). In some other cases, action research is perceived as a form of continuous professional development and a way to promote life-long learning (Cain & Milovic 2010). Thus, action research has a multiple role. Research enables teachers to better understand their own jobs, to be better informed about problems and increase their commitment to find out ways to overcome them. Action research can serve as an organizational strategy which keeps teachers active and engaged in some special contexts. When 'teachers act as researchers, the research then becomes part of their role' (Bogdan dhe Biklin, 2007: 244) and an

engagement in their educational process.

Teachers involved in this research conducted investigations in their own classrooms as part of their action research course. This paper is about the impact of action research in increasing teachers' self-confidence and their role, as researchers, in fostering collaboration amongst peers, as well as in improving their classroom teaching practices. The research question investigated in this paper is as follows:

What impact does action research have in teachers' own perception as researchers and in their professional development?

Research Method

Participants

Two master-level programs started to be implemented in the Faculty of Education of the University of Prishtina in 2010. Their focus is on developing experts in educational curriculum and leadership. Master students enrolled in these two programs are working concurrently as teachers and/or as managers/administrators in various school institutions. Thirty students of the first generation 2010/2011 and 24 students of the second generation 2011/2012 attended the action research course. To participate in this research study, we selected only those students who implemented research projects with their own students and who simultaneously responded to the open-ended questionnaire. Thus, 14 students of the first generation, and 10 students of the second generation participated in the study. Their participation was determined based on their readiness to respond to the open-ended questionnaire, which was sent through email. Their 'reflective writings' and "research project reports' were also analyzed as part of the assignments implemented during the summer-term course in respective academic years in 2011 and 2012.

Data Collection and Analysis

Data were collected during the implementation of the course and after its completion with students who attended the action research course in academic years 2010/2011 and 2011/2012. Reflective writings and research project reports, which students implemented in their classrooms, were also part of course requirements; while the questionnaire with three open-ended questions was sent to student-teachers through email after course completion. Questions were about evaluation of research impact in their teaching practice, collaboration as part of the course activities, especially the "critical friends" and, their overall effects in students' achievements and in their personal professional development.

Only those reflective writings and research reports from student-teachers who responded to the open-ended questionnaires were considered for further examination and analysis. In order to understand and analyze the data from three various sources, the inductive strategy for data analysis was employed. 'Diving into data details and specifics in order to discover important patterns, themes and relationships starts by exploring them first and then confirming them' (Patton, 2002: 41). Data were analyzed into two phases. In the first phase, all data were analyzed separately and in detail by reading them and, at the same time, identifying and coding them. They were recorded in a separate table in a form of a summary or emerged patterns and themes. The table with identified patterns presented an effective tool for the researcher to do a better [axial] coding in the second phase, and build connection between codes and initial categories. Through axial coding,

all 'patterns' were grouped together in order to generate 'themes', and similarities and differences of participants' comments were identified. This triangulation of qualitative data provides for valid and reliable findings. On the other hand, since the researcher is at the same time the instructor of the action research course at the Faculty of Education, a separate examination from an external researcher was also conducted.

Findings and Interpretation

Coded data were organized in a table in order to identify themes, which integrate all issues identified from the three sources of data. Data from the questionnaire along with the triangulation of data from three various sources served as the starting point for defining themes. This data organization by grouping all patterns of the same category together (Tab.1) enabled the identification of four general themes: a) Action research and improvement of teaching practice; b) Action research as a tool to identify students' needs; c) Reflecting on oneself as a research practitioner, and; d) Action research and collaboration with 'critical friends'.

Tab.1. Summary of patterns according to categories and themes that emerged from the data

Data sources	Patterns (open coding)	Themes (Axial Coding)
Reflective writings	- Action research helps teacher to improve their classroom practice; - Searching new experiences; - Changing the way of work with own students; - A 'different' way of work, non-routine, which motivates students to learn more.	Improve teaching practice
Research projects	- Efforts to identify difficulties in classroom, and then overcoming them; - New experiences and various classroom practices – more possibilities for creative work; - Positive changes and better students' achievement - 'Action plans' helped motivate students; - An important factor in quality enhancement in education; - Feedback provided which enable modification and change of planned activities; - Discussion with 'critical friends' – support for selecting suitable classroom activities.	
Questionnaires	- Intervene to make change occur; - Collect facts to change; - Possibility to implement various actions; - Situation analysis and various behaviors; - Positive changes for the self and for the school.	

Reflective writings	- Activities tailored to students' needs; - Activities which overcome students' learning difficulties; - An increase in students' engagement.	Identification of students' needs
Research projects	- Adapting methods to suit students' needs; - Careful in selecting activities, which are both easy to do and interesting for students.	
Questionnaires	- More committed towards students; - Identifying the real situation of all students; - Fairs student assessment.	
Reflective writings	- Undertakes new initiatives without any hesitation; - Power and self-confidence to act; - Searcher of 'other' experiences; - Motivation and the will to achieve; - Fruitful, a good stimulator; - Involvement in action research provides satisfaction – you feel like a real researcher; - Self-assessment process.	Reflecting on oneself as a researcher
Research projects	- Encouraging for further work; - Responsible for changes; - More open investigator; - Reflecting for my own work and my 'critical friends'.	
Questionnaires	- Interesting experiences; - You feel a step forward as a professional; - Preparing for new research; - Learning by doing; - I appreciate my own work and seek for suggestions from my colleagues.	
Reflective writings	- Action research an opportunity to collaborate; - Collaboration with 'critical friends' provides for self-confidence; - Decisive and a critical approach towards problems; - Collaboration splits the work among collaborators, but it is more effective; - 'Critical friends' are valuable.	Collaboration with 'critical friends'
Research projects	- 'Critical friends' are a good example of collaboration; - A better assessment when working together; - Help in research validity.	
Questionnaires	- Critical reflection; - Systematic analysis among peers; - 'Critical friends' collaborators and guides; - Exchange of experiences; - Critical friends are facilitators and supporters.	

Interpretation of data presented in Table 1

Action research and improvement of teaching practices

After completing their projects in their classrooms, participants in this study saw action research as an opportunity through which they could do positive changes not only in their classrooms, but in the schools they work in. Continuous reflection on their work enables them to identify strengths and weaknesses accompanying their teaching practice. On the other hand, their careful analysis of various classroom situations and students' behaviors, including their collaboration with 'critical friends', enabled them to undertake new initiatives and finding appropriate solutions to problems. Teachers expressed that:

> *'Action research is an investigation of new experiences and a very good way to implement them in our classrooms'.*
> *'Action research can become an important factor to improve quality of education in our school system'.*
> *'Real change does not occur overnight, but through an ongoing feedback process, continuous actions, assuming responsibility and deep thinking of teachers themselves and those within the school system, including outside supporters'.*

Research cycles implemented in the classroom, including ongoing collection of facts and their analysis, careful planning and organization of 'activities' were part of teachers' project processes. Their analyses indicate that projects implemented in their classrooms had a significant positive impact in the improvement of teaching practices as well as in students' achievement. It also motivated them to use this methodology as part of their teaching process. Most of student teachers expressed that action research provides ground to test different teaching and learning practices in order to improve students' achievement. One teacher stated that *'this new approach requires analyzing continuously the causes of problems and act on time in order to improve my students' achievements'.* Another one recognizes that along improvement of students' achievements in her classroom, new practices provide for more creativity, to further emphasize that *'implementation of activities under action plans is something new and working with students become more attractive'.* Another important aspect indicated by students was that they do more in-depth literature review and better connection between 'theory' and teaching and learning practice. Problems treated in some of students' research projects were in line with their theoretical analysis and classroom practical approach

Action research as a tool to identify students' needs and enhancing their achievements

Identification of problems in classrooms was the starting point of student teachers' research projects. In most cases, they were related to identifying students with learning difficulties, or behavior problems. Thus, research planning was student-centered and identified activities that would best suit their needs. One student teacher, who investigated learning difficulties in understanding of fractions, reported: *'Doing research in my classroom helped me to find out new ways of teaching, which facilitated students' learning and understanding of fractions'.* Another teacher, who prior to her research was concerned with the lack of interest among her students for reading school required novels, said: *'Action research gave an answer to my concern and had a positive impact on students' interest to read novels'.*

Concerns expressed by teachers are of various natures. However, unfolding them carefully and implementation of all action research steps in almost all cases had positive impact on students' results. Following are some of the opinions of student teachers, which relate to the impact of action research on students' needs and enhancement of their results.

'It is a good feeling for a teacher when he/she observes that students' spelling mistakes decreased by half within a very short time'.

'Out of my experience, I would suggest to all teachers who are familiar with their students to foster new working methods so that they are suitable for their students'.

'These research findings encouraged me to further continue with a new research phase, by following up the same methodology and focusing in the sustainability and further development of values, students' positive attitude towards physical and social environment'.

'All students are now more active in their classrooms; they feel free and equal participants in teaching'.

'Teachers should be always careful when selecting classroom activities so that students are exposed to a better and more interesting learning'.

Action research was the first experience, but highly effective, for student teachers. One of the students writes: '*Action research helped me to become more familiar with my students and their problems'.* Still another one stated in his report that action research is a stimulating tool. Presenting his research project, he showed encouraging results about his students with learning difficulties who improved significantly their writing. *'The results achieved through action research motivated me to start over again with a new cycle of activities with other students who are already identified as students with writing difficulties'.*

Reflecting on oneself as a researcher

Direct involvement of student teacher in doing changes in their classroom indicated that they were not only of 'professional' nature, but of 'emotional' one as well. Careful planning of all activities, and systematic observation of students' progress, were crucial in overall classroom achievement. Qualitative measurement and analysis of students' research projects, and continuous improvement of their results, was a motivation for many teachers to further continue with similar measures in the future. They saw action research as in important tool in their work, and think of it as an integrated part of teaching and learning process.

'Having in mind the results of my own work, I can conclude that action research is fruitful - a motivator and a stimulus for my work'.

A significant issues, which resulted from the analysis of the data related to the impact of action research on student teachers themselves, was their awareness that they are the one to assume responsibilities for 'changes' in their own classrooms.

'Now, I do not see the problems as I used before. I intervene myself to make a change and at the same time I collect facts on the effect of those changes in my classroom'.

'I learned a lot by doing. When you assume responsibilities for change, you are more motivated for work'.

This new experience, according to student teachers, encouraged them to try new things, plan on their own and judge their value. Research projects were a stimulus and motivator for them to undertake new initiatives; while for some others, it was a self-assessment process, which resulted in satisfaction.

'Action research provided a good professional tool to investigate my own self, how do I work and the way I do things'.
'Enthusiastic teachers are those who turn the wheel of change, by showing their readiness to undertake quality actions in their classrooms'.
'Action research made me a 'researcher'. Now, I have more confidence and feel more powerful to act'.
'To be a researcher is a real satisfaction. You feel yourself one step forward as a professional'.

Action research and collaboration with 'critical friends'

Systematic reflection on steps undertaken and implemented in classroom and discussing them with 'critical friends' as one of the planned components of the research course was a good example of collaboration according to student teachers. They indicated that this collaboration was of multiple values since they felt more secure to take decisions and had a more critical approach towards problems they faced during the research problem.

'When I collaborate with 'critical friends' I feel more secure in the work I do'.
'Regular communication with 'critical friends' is a fundamental part in conducting research projects – it is an extraordinary help'.
'This form of collaboration takes teachers out of their 'professional isolation', makes them more open, makes them investigators and change agents of their teaching practice'.

From teachers' experience in collaborating with their peers, it turns out that 'critical friends' are those who enable a real and true collaboration from which everyone wins.

'Collaboration in research projects is real. We are more responsible for the work we do, and we do not benefit on the detriment of the person with whom we collaborate'.

Exchange of experiences and systematic analysis of problems and their possible solutions with peers is one of the values of collaboration in projects involving action research. This type of collaboration enhances the quality of our work, and the reliability of results. Therefore, student teachers qualified 'critical friends' as 'guides', 'facilitators', 'supporters', 'critics' and 'true friends'.

'Advice from critical friends helped me crystallize my ideas; they helped me keep on track throughout the research process. Their suggestions and 'criticism' was indispensable for the implementation of my project'.

Discussion and Conclusion

This paper aimed to examine student teachers' perception on their role as researchers and the impact of action research on their professional development. Implementation of action research projects by student teachers themselves impacted positively not only their reading habits, but their ability to interpret, clarify and 'criticize' formal research works (Frankel, at al, 2012). In addition, changes and 'action' plans to improve their teaching were based on professional reflections of their own research (Schmuck, 2009). Careful planning of all research steps, interpretation, evaluation and then 'modified' plans were valuable sources to improve students' skills and achievements (Vula and Bërdynaj, 2011).

According to Sagor (2010), involving teachers in research work enables them to experiment, discover and modify their actions and activities in their own classrooms. Those 'modified' plans were crucial in all student teachers' projects. Students' achievements

presented through student teachers' research projects showed that these 'actions' and steps implemented during the action research project enabled significant improvement of students' achievement and raised their motivation to learn.

While examining the impact of some school-based research work on teacher professional development, Zeichner (2003) noted that involving teachers in doing research fosters self-confidence in their actions to support their students' learning; they become more active in facing difficult situations in classroom settings and consider research finding and results, beyond their own experience, to further examine their own teaching practice. Findings in this research also indicate that when teachers act as researchers, then research projects become part of their own work (Bogdan and Biklin, 2007), and a tool to solve indentified problems in their classrooms.

Involving student teachers in research work was a new experience for Kosovar teachers. Findings that came out from the data collected from three various sources indicated a positive impact of action research methodology in many aspects.

Firstly, action research as a method used by student teachers had a positive impact on teachers' effectiveness and students' learning. Secondly, collaboration with 'critical friends' further validated their research projects. Thirdly, action research fostered a research culture, which enhanced teachers' self-confidence so that they assumed responsibility to find ways and suitable methods in their teaching practice.

This research indicated that one of the main factors which has an impact on quality enhancement in education is, by far, the quality of program provision for teacher professional development. According to Stein, Smith and Silver, teachers are those who enable development of effective programs, which foster 'careful involvement and proper decision making by teachers themselves in order to create, implement, reflect and modify their teaching practices' (Stringer, 2004:173). In conclusion, this research suggests that only those teacher professional development programs, which are teacher-centered and enable them to become researchers in their own classrooms and schools, should be considered as part of their professional development programs

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