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Engagement of Teachers in School Practice Research in Serbian Context

Abstract

The idea of teachers as researchers emerges from the belief that teachers are a key factor in the development of school work practice and that teacher professional development should be based on the concept of reflective practice. Teachers are given valuable opportunities for learning and development through involvement in various research activities into school practice. The aim of the empirical research presented in this paper is to examine frequency, reasons and satisfaction of teachers engaged in school practice research. A specific task of the research activity was meant to determine if there were differences between classroom teachers and subject teachers in relation to the selected questions. The research was conducted in four primary schools on the basis of a sample of 129 teachers. The instrument which represents a combination of survey questions and a descriptive rating scale was used for data collection. The research results indicate that the teachers on average state that they rarely engage in research and that they rate their satisfaction of the experienced engagement in research with an average grade of M=3.33 (on a scale of 1 to 5). Statistically significant differences were registered between the classroom teachers and the subject teachers regarding the frequency of their engagement in research conducted by students, as well as regarding the assistance in solving problems encountered at work as a reason for their engagement in research. The possible direction for further research in this area is provided based on the analysis of the results.

Keywords: school practice research, engagement in research, teachers as researchers, reflective practice, classroom teachers, subject teachers

Introduction

The development of school practice can be understood as a complex process of ongoing changes with the aim of achieving a higher level of school work quality. Development interventions, that is, actions that lead to a change in school practice should be based on previously conducted systematic monitoring and analysis of all segments of school work. School practice research is initiated and conducted in order to get to know and understand the practice better as well as to change both the practice itself and the conditions in which it is implemented (Kemmis, 2004). Therefore school practice research can represent a path to the development of school practice (Hebib & Matović, 2012), and have a practical value by reflecting positively on the learning and teaching process at school (Wang, Kretschmer & Hartman, 2010).

Recently, an increasingly popular attitude developed towards the so-called research-based approach to work, which became important in practical activities at school, i.e., this approach has an informative and formative function for practitioners themeselves and for their professional development (Jurić, 2004). Through the

research-based approach to work, practitioners directly contribute to changing and developing school practice and conditions in which it is implemented (Pešić, 2004). Indirectly, practitioners contribute to the development of pedagogical theory by following theoretical and research findings as well as by applying and testing them in practice and by identifying research problems (Vogrinc & Valenčič Zuljan, 2009). Through applying the acquired theoretical knowledge and putting it into practice, practititioners broaden their own knowledge and experience (Check & Schutt, 2012). In adition, they make decisions about their professional work and school work as a whole and become agents of change (Cochran Smith & Lytle, 2009) in functioning of the school.

The research-based approach to work in accomplishing the role of a teacher at school does not imply new or specific teacher activities. The approach, essentially refers to a specific transformation of this professional role (Hammersley, 1993). Teachers who consistently apply and practice the research-based approach to work explore the link between their own classroom activities and specific academic and non-academic outcomes of the learning and teaching process (Marzano et al., 2019). In addition, to transforming the primary role of the teacher, the research-based approach implies changes in understanding of the function and the nature of the teacher education process as well as the teaching profession, which should be based on the following principles: reflective practice, research-based practice, cooperation, and autonomous professional actions (Radulović, 2013).

The idea of teachers as researchers investigating their own work and school work emerges from the belief that practititoners can be agents of change and contributors to the development of school practice (Stanković et al., 2015). Teachers 'become' researchers in a situation when they systematically include research methods and adhere to basic research principles when reflecting on their own professional experience and improvement of their own work as well as school work practice. Teachers − researchers are those teachers who are committed to their work, who are curious and ready to learn on ongoing basis (Stanković et al., 2015).

Teachers who 'practice' the reseach-based approach to work and who are ready to incorporate research into their own work practice as well as school work can be referred to as reflective practitioners. Namely, research in this context implies specific self-reflection, connecting thinking and acting (referring to reflecting on one's own actions), as well as reviewing own professional experience (Radulović, 2011).

Engagement of teachers in school practice research is of particular importance for the development of school practice, as well as the development and application of the research-based approach to teachers' work. For the development of teachers as researchers / reflective practitioners it is very important that research is initiated and conducted by practitioners themselves. Practitioner research is research in which practitioners: a) select and define the problem and the subject matter of the research, b) select methodological design they are going to apply and use in the research, c) analyse the collected data within their professional knowledge, and d) exchange research data with colleagues, while at the same time they review starting points and change their own practice (Kemmis, 2004). Practitioner research is considered to be a healthy way of developing practitioners' capacities to independently make decisions in relation to their own professional actions (Lankshear & Knobel, 2004).

This group of school practice research represents a key pre-requisite for the development of reflective practitioners, because the primary purpose of practitioners' research is to change practice, that is, to search for solutions to problems and difficulties encountered at work (Krnjaja, 2014). Nevertheless, practitioners are given valuable opportunities to broaden their professional knowledge and experience by engaging in research that is not initiated, designed and conducted by school employees but other individuals or institutions (such as researchers – associates at research or scientific institutions, educational authorities, national or international research institutions, non-governmental organisations, etc.). When conducting this group of school practice research, practitioners often assume the role of a coordinator and data collector in the school environment in addition to the role of a respondent data source. They can also have an equal role with the so-called professional researchers or experts, i.e., the role of members of author teams on research projects. It is indisputable that through engagement in research practice, practitioners broaden their own research knowledge and experience. Through this process, practitioners become more qualified to ensure the transfer of research results and theoretical knowledge to the practice of their own work and the entire school work.

The importance of practitioners' engagement in school practice research has been analysed in this paper. The following section presents analysis and results of the research conducted with the aim of examining the engagement of primary school teachers in different groups of school practice research: frequency, reasons and satisfaction with engagement. Special attention has been paid to examining the differences between the classroom teachers (those who work with elementary school students from the first to the fourth grade) and the subject teachers (those who work with students from the fifth to the eight grade) in relation to the selected questions.

Method

The research study was conducted in four primary schools, two schools in Belgrade and two schools in Šabac. A total of 129 teachers were included in the sample, out of whom 41.9% were classroom teachers and 58.1% were subject teachers. Women were more represented in the sample (75.2%) than men (24.8%). The sample included teachers with different length of service: up to 10 years − 32.0%; from 11 to 20 years − 29.7%; from 21 to 30 years − 25.0%; over 30 years − 13.3%. One part of the sample of subject teachers consists of the teachers who teach different subjects: socio-linguistic group of subjects (35.7%), the group of subjects comprised of Math and natural sciences (37.1%), subjects in the field of arts, physical education, and technical education (24.3%).

The surveying and scaling technique was used for the purpose of data collection and accordingly the instrument consisted of survey type questions and a descriptive rating scale. In addition to frequencies and percentages, the following procedures were applied in data processing: an arithmetic mean and a standard deviation to describe variables; a t-test for independent samples to test the hypothesis on significance of differences between arithmetic means; a chi-square test to test the hypothesis on significance of differences in distributions of category variables and Cramer's V to determine their correlation.

Research results

The interviewed teachers evaluated the frequency of involvement in different groups of research into school practice by using a four-point scale: never, very rarely, occasionally and often. The obtained arithmetic mean values indicate that the teachers are on average most often involved in research conducted by students for the purpose of writing various papers (e.g. doctoral dissertations, master's theses, as well as pre-exam obligations, practical work) (M=2.50, SD=.77), as well as in research that teachers, independently or in cooperation with colleagues, design and implement within the school where they work (M=2.46, SD=.76). Less frequently the teachers engage in research initiated and conducted by scientific institutions and their employees (e.g. faculties, institutes) (M=2.07, SD=.87). Very rarely the teachers engage in research supported by educational authorities, by initiating and funding them (e.g. national testing, international student assessment testing − PISA, TIMSS) (M=1.77, SD=.84), then in research undertaken by non-governmental organizations (M=1.41, SD=.62) and international organizations of which Serbia is a member and with which it has signed cooperation agreements (e.g. UNICEF) (M=1.32, SD=.63). In order to see if there is heterogeneity in terms of research in which the teachers are engaged, the number of research groups in which they have engaged so far has been registered. Based on the results obtained in this research, it can be assumed that the teachers on average engage in about three different research groups (M=3.48, SD=1.56).

Most teachers report assisting colleagues with their work (59.4%) and solving problems they encounter in their daily work (49.5%) as reasons why they engage in research. In addition, the motive for their engagement in research is acquiring new knowledge, gaining new experience and making new acquaintances (39.6%), as well as the significance, topicality, interestingness of the problem that is being looked into (36.6%). About ¼ of the teachers reports that they engage in research just because it is a kind of work obligation which cannot be (always) refused (25.7%).

The teachers evaluated satisfaction with the engagement in research so far by using a five-point Likert (Likert-type) scale. Most teachers state that they are satisfied (39.6%), that is, undecided on the matter (35.6%). Far fewer of them are not satisfied (14.9%), while very few teachers opt for extreme poles of the scale: I am very satisfied (6.9%) and I am not satisfied at all (3.0%). The registered value of the arithmetic mean is M=3.33 (SD=.92). A small number of teachers, 31 in total, made suggestions that could contribute to their being even more satisfied with their own engagement in research. Among them are the following suggestions: encouraging a higher level of interest and motivation of teachers to take part in research projects as well as a greater engagement of teachers in research activities (6); providing more opportunities for engaging teachers in different research groups (4). In addition to the above, the teachers stated that it was necessary to work on making assumptions for the obtained research results to be put into practice (5), that is, to investigate current problems for which solutions can be applied by teachers in their work (4).

When the classroom teachers and the subject teachers are compared in terms of frequency of engagement in the selected research groups, the obtained arithmetic mean values indicate that the classroom teachers engage more often in research undertaken by employees in the school where they work, students and educational

authorities, whereas the subject teachers engage more often in research conducted by scientific institutions, non-governmental and international organisations. However, statistically significant differences between these two groups of teachers were registered only in relation to the research whose initiators and implementers are students ($t_{(101)}$=2.49, p=.015). The results show that the classroom teachers engage more often in this research (M=2.72, SD=.67) in relation to the subject teachers (M=2.35, SD=.80).

Differences were also registered between the classroom teachers and the subject teachers regarding the reasons for engagement in research. More classroom teachers state that their motive to engage in research is solving problems they encounter in their own work, assisting colleagues in their work, as well as the attitude that it is a work obligation which cannot be (always) refused. In contrast, a larger number of subject teachers states that their motives include acquiring new knowledge, gaining new experience, making new acquaintances as well as the significance, topicality, interestingness of the problem that is being looked into. Statistically significant differences were registered only in relation to the reason – solving problems they encountered in their work ($\chi^2(1)$=6.23, p=.013, Cramer's V=.25). A much larger number of classroom teachers (63.6%), in comparison to the subject teachers (38.6%), states that reason.

According to the obtained arithmetic mean values, the subject teachers are more satisfied with their own engagement in research than the classroom teachers. However, the registered difference is not statistically significant ($t_{(99)}$=-.17, p=.864).

Conclusion

The frequency of engagement in different research groups has been assessed by the teachers with average grades ranging from M=1.32 to M=2.50. On this basis, and at the same time given that the theoretical range of the scale is from 1 (never) to 4 (often), it can be concluded that the grades obtained concentrate around the frequency category marked on the scale as – very rarely. On the other hand, the teachers are moderate when assessing satisfaction with their own engagement in research. The result that just around ⅓ of the teachers is very satisfied (5.4%), that is, satisfied (31.0%), provides a basis for assuming that their expectations have not been met in this respect. Most of them think that teachers lack motivation, interest and willingness to be engaged in the research.

The fact that approximately half of the teachers (49.5%) recognise the potential of research as a starting point in solving the problems they encounter in work is encouraging. This is also indicated by the results of the related research done by practitioners in school (Van Katwijk et al., 2019). However, based on the results obtained in this research, differences were registered between the classroom teachers and the subject teachers in this regard. The aforementioned reason indicates a considerably higher number of classroom teachers (63.6%) in relation to the subject teachers (38.6%). The explanations for such difference can be the following: classroom teachers and subject teachers complete initial education at different institutions and accordingly they attend different study programmes; classroom teachers teach several subjects in one class, while subject teachers teach the same subject in several classes; then, their beliefs about a teacher as a researcher or their attitudes towards the function of school practice research, etc., may differ.

In this research, different statistical values were recorded for the classroom teachers and the subject teachers in relation to frequency, reasons and satisfaction with engagement in research. However, the existence of statistically significant differences, in addition to the reason stated for engagement in research, was indicated just in relation to the frequency of their engagement in research undertaken by students (the classroom teachers − M=2.72, SD=.666; the subject teachers − M=2.35, SD=.799). Such results demonstrate that research about determinants which shape teachers' behaviour in relation to engagement in research requires involvement of a wide variety of factors (Griffioen, 2019).

Acknowledgments

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