

Thematic Article

Focus on Teacher Motivational Factors: Increasing Innovation Efficiency, Retention in the Teaching Profession

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Abstract

The shortage of teachers and the challenge of popularizing the teaching profession are some of the most pressing problems in education today. Finding a solution to these issues is a priority task. Our research focuses on which teacher motivational factors improve professional life, create a better school atmosphere, and ensure new career paths, avoiding the harmful consequences of stress and burnout. In interviews with teachers teaching in disadvantaged schools, we tried to identify the motivational factors established by the literature, and we were curious about what factors influence someone's becoming an innovative teacher. All this knowledge can be useful information for teacher training, and help to develop an incentive system for teachers in the field, preventing them from leaving the occupation. During our empirical research, we analyzed 24 interviews with Atlas ti. Our main research question was what are the motivational factors that enable teachers to make adequate professional decisions, and why their pedagogical problem-solving ideas and innovations do not remain isolated data. We investigated which motivational factors can be identified as drivers and which as barriers to the development of innovations, and which are responsible for retention in the teaching profession.

Keywords: decision capital, motivation factors, efficiency, professional communities

Introduction

The challenges of the 21st century, such as sustainability, globalization, digitalization, have opened up the opportunity for new areas of innovation. The main aim of all the actors responsible for education in a knowledge-based society is to strive for the development of competences, with the help of which employees with a modern, open approach and who are capable of cooperation can become the driving force of development for all sectors of the labor market. All of this requires a continuous renewal of educational content and structure. Many countries in the world are facing this challenge. Similarly, improving Hungary's economic competitiveness at the international level cannot be achieved without significant changes in education. Examining the national innovation strategies, it is clear that they are present as one of the significant segments of economic and social development. These internally generated innovations within the education sector receive special support in order to further development (Fazekas et. al., 2018, Gil et. al., 2018). In recent decades, social transformation has confronted education systems with a number of obstacles that can no longer be dealt with via, traditional organizational, content-based, and methodological solutions. Schools all over the world are looking for new ways to improve their educational programs and improve student achievement. In 2010, the ministers responsible for public education of the OECD countries declared in a joint statement that innovation plays a decisive role in improving the effectiveness of the public sector. The key to the productive functioning of the education system is a good teacher. This is supported by the OECD research and action plan (Teachers Matter, 2005), which aimed to attract teachers determined for quality education. It is important to notice that uniform answers cannot be given to deal with problems in the world of education. Thanks to the sufficient motivational base of the

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teachers, they are able to make decisions that are essential at the regional and local level for the sake of student success.

„One of the tasks of the school is to ensure that the students acquire a high level of knowledge, since the success of the work there is the key to the future progress of the students.” (Schleifer, 2017: 6) Ensuring the quality and effectiveness of public education and its evaluation are among the outstanding goals of educational policy in developed countries. However, what we mean by quality, effectiveness and efficiency is constantly the subject of professional debates. The measurement of teacher and school efficacy should not only refer to the measurement of student performance (Kane & Staiger, 2002). However, it is difficult to identify a uniform indicator that could be used to name the effectiveness of teachers and institutions, so, it is worth examining the work of teachers in a complex way (Szemerszki, 2015). The concept of student achievement includes the following elements: the level of student knowledge, success of socialization, improvement of the labor market opportunities for those who leave the school system, and the amount of income available as a result of higher education or the value of social capital created through education. In order to be able to measure effectiveness, it is necessary to develop an evaluation system, which is of increasing importance in the public education systems of developed countries. It has also become accepted in international practice that the evaluation of the quality and effectiveness of public education must be carried out at several levels, with the examination of several areas and activities (Horváth & Környei, 2003).

Literature review and theoretical background

Isolated teacher behavior vs. cooperating professional communities

The cooperation of teachers, who play a prominent role in school innovations, and their impact on student achievement are also highlighted in international studies (Wenger, 2000; Lena & Pill, 2006; Reynolds, 2008; Rose, 2008; Bryk, 2010; Woodland et. al., 2013, Hargreaves-O'Connor, 2018). In the theoretical part of our research, we aim to compare isolated teacher behavior at an international level with work in professional communities from the point of view of how they are related to student performance (paying special attention to schools with an unfavorable student composition), the innovative behavior of teachers, and by keeping teachers in the teaching profession.

The research highlights that „some of the teachers still work in an isolated manner, following the model of the 'egg compartment' model” (Dan Lortie, 1975, cited by Schleifer et. al., 2017:7). From a physical point of view, this term sensibly approaches the lone work taking place in the classrooms arranged along the corridors. According to Johnson (2015:119), the 'egg box' broken down to its atoms can't implement and strengthen diverse teaching models. If schools are designed like egg compartments, the classroom space sets limits to teacher expertise and collaboration. All this makes it difficult to fully utilize the expertise of colleagues and to share their experiences with others.” According to the traditional egg compartment education model, a teacher's effectiveness is attributed solely to his or her independently acquired knowledge and skills (Bryk, 2010). Contrary to all this, however, it is clear that cooperation is essential in other professions, such as research, healthcare, architecture and performing arts. Cooperation is also important for teachers so that they can learn from each other, coordinating the topics of their lessons, and discussing their experiences and ideas. Vangrieken et. al. (2015) created a typology of collaborative activities and structures. In it, a group is seen as a collection of individuals who share a common goal and identity. A team is a group that has common goals for which they are jointly accountable, and team members that depend on each other to accomplish tasks. “The term community of practice (Vangrieken et. al., 2015:34) refers to members having a common interest and passion for something they do; and learn how to be more effective by working together.” “A professional community or professional learning community is a collaborative culture characterized by shared values and vision; and which extends across all groups or other types of teacher groups in a school or across a network of schools. Solving problems must go beyond the walls of the classroom” (Bryk, 2010:24). Wenger (2000) identifies with the concept of communities of practice the phenomenon when the participants work together and learn to solve a problem with the help of their expertise, interest, and motivation in a specific field. Communities of practice then become communities of horizontal learning in the school world. Research by Leana and Pill (2014) highlights that teachers' social capital, which is formed through social relationships with other teachers, was more strongly related to students' results than the human capital of these teachers. The social capital of the teachers was attributed to their formal education and degree experience. Previous research by Leana and Pill (2006) focused on schools in a low-income neighborhood, which found that the level of

school “internal social capital,” which includes the level of trust, information sharing, and common vision, is associated with student achievement: the a higher level of internal social capital is a predictor of better educational quality, even if the students’ unfavorable social situation is taken into account. Killion’s (2015:63) study points out that „when teachers engage in high-quality collaboration, there are collective and individual benefits.” A large-scale study was conducted regarding teachers’ collaboration practices, which found that „good quality collaboration among teachers is primarily associated with an increase in student performance.” (Killion, 2015:64) They examined the characteristic qualities of teachers, school characteristics, and the value added by teachers. The results showed that cooperation between teachers has a positive effect on both teachers and their students. The majority of teachers surveyed (84%) indicated that they belong to a group of teachers that work together based on instructions. 90% of the teachers claimed that their collaboration was useful. Researchers and theorists continue to argue that productive Professional Learning Communities (PLC) catalyze increased student achievement. In his work, Harpe (2014:5) highlighted four key elements of teacher cooperation: „time spent working together, common goals, result orientation and cooperation. The time spent working together must be carried out regularly and with the support of the director in order to be effective. The time spent together is necessary in order to build the necessary trust for joint work and cooperation. In order to achieve common goals, the areas in which change is necessary must be precisely identified, so the cooperation must achieve results. Collaborations also provide an opportunity for teachers to see each other’s good practices, discuss what they have seen, and adapt new strategies learned from colleagues.” This discourse provides an opportunity for professional development and learning between the groups. In developing new strategies, colleagues can share their experiences and listen to constructive criticism. One of the important criteria for creating a successful collaborative environment is helping each other. Vangrieken et. al. (2015) classified regular, open and honest discussion between team members as the characteristics of effective cooperation between teachers. Active monitoring of innovations and changes in the world of education; clear definition of roles and responsibilities in the team, and adapting to the curricular changes observed in education and the efforts all make cooperation among teachers effective. Hargreaves-O’Connor (2018) called this phenomenon „cooperative professionalism”, which means learning for everyone through working together. Woodland et al. under (2013:444) „draw attention to the cyclicity of teacher cooperation. Decision-making is a key element for the teaching community. These include maintenance decisions (e.g., budget), safety decisions (e.g., classroom discipline), organizational activity decisions, assessment decisions, and instructional decisions (what and how to teach). (...) During the professional dialogue, the teachers react reflectively to what they have experienced and prepare new decisions.” Analyzing the qualitative data, Harpe (2014) found that even just a few negative colleagues or uncooperative personalities in the faculty can hinder the development of the school. School leaders therefore need precise action plans that are easy to use, so that productive teacher cooperation becomes an integral part of school work. A measure was created that can be used among principals to quickly and accurately identify teacher collaboration weaknesses. Rose (2008) also emphasizes collaboration to increase student achievement, which he identified as the following elements: 1, school culture and climate; 2, clear goals; 3, monitoring the results; 4, appropriate use of time; 5, reflective dialogue about pedagogical practice. According to Reynolds (2008), the success of PLC is significantly influenced by strong leadership, built-in school time, and commitment to school development. In their research conducted in secondary schools, McLaughlin & Talbert (2001) drew attention to the fact that in teacher communities with a weak cohesive force, innovative teachers did not become independent, they accepted that their colleagues - especially in the case of underachieving students - did not invest special energy while teaching into the learning process. In schools with strong, traditional communities, innovative teaching ideas were pushed into the background, putting the central expectations and their testing in the foreground. In strong, collaborative educational communities, teachers were able to generate new ideas and try them out with the goal of helping more students learn the curriculum. Ronfeldt et al. al’s (2015) research showed that working in tutoring groups was useful, particularly effective in mathematics and reading skills. A research team at the University of Chicago, led by Bryk (2010), developed a school support model to better understand why some schools are able to innovate for their students and others are not. The emphasis was placed on the „professional capacity” of the school, which includes many elements: the quality of human resources and professional development, the rules of continuous development and the professional community itself. By the name „professional community”, Bryk (2010:24) refers to the fact that during this collaboration, teachers make their work and its results public to each other, formulate critical questions, and are committed to the development of students. During their research, it was confirmed that schools with a strong professional community were four times more likely to experience a strong improvement in students’ reading and math scores than in schools with a weak professional community.

The effectiveness was further enhanced by the combination of the professional community with the coordinated curriculum. Bryk (2010) further points out that principals play a key role in fostering collaboration that improves student outcomes. Bryk's (2010) longitudinal studies of an elementary school also confirmed that the professional capacity of the principal is a condition for achieving results, which is associated with cooperative reforms and educational improvements during operational management.

The effect of teacher cooperation on educational practice

International research also focuses on whether teacher cooperation improves teacher satisfaction and educational practice. Vangrieken (2015) and his fellow researchers concluded that teachers who are willing to work collaboratively are able to anticipate the effectiveness of their work. Because they strive not to work in isolation, they are much more productive than their isolated counterparts. PISA results show that Shanghai, Hong Kong, Singapore, Taiwan and South Korea represent high quality education (Jensen, 2012; OECD, 2013). The communities of practice in the West have enjoyed increasing practice since the 1990s, at the same time, the highly centralized Asian education policy based on the traditional transfer of knowledge takes a critical view of this new phenomenon, as the world of PLCs foreign to their cultural context (Pang & Wang, 2016). These professional learning communities, already known in education in Europe and the United States, are present in the Asia Pacific region as well, the aim being to forge cooperation with colleagues. This would thereby be a manifestation of a strong professional community, which would have an impact on student responsibilities toward their studies resulting in an increase in academic results. Professional networks offer venues for teachers to apply their own practical knowledge to solve common problems. The number of empirical studies related to learning communities is still very few, but a noticeable shift can be observed in the education system of the Asia Pacific region (China, Hong Kong, Taiwan, South Korea, Singapore). Since these educational systems have different historical, political, cultural, demographic backgrounds and face different challenges in their daily teaching practice, the same educational practice cannot be applied to professional communities all over the world. To explore the practice of PLCs, research has been applied to both rich and less developed regions of China (Zhang & Pang, 2016). Wang's (2015) research in schools in Hong Kong found that PLC practice has some unique characteristics that can be explained by organizational, social and cultural factors. In the Taiwanese context, Chen and Wang (2015) pointed out that the following factors are essential for the formation and maintenance of PLCs: mutual trust between teachers, strong leadership, organizational structure, continuous monitoring. In the past decade, school-based professional learning communities have emerged as a key element of South Korea's education system (Park & Kim, 2014).

The collaboration is also related to the retention of teachers in the field. Collaboration can help teachers become committed to their school and the teaching profession (Kraft et. al., 2016; Johnson et. al., 2012). In the event that teachers leave their school, professional knowledge and collegial relationships are lost, the replacement of which is quite time-consuming for the teaching staff. They conducted in-depth interviews with teachers in the first four years of their careers, and found that there is a high dropout rate among beginning teachers. Beginning teachers felt more comfortable in schools where they received more support from their colleagues (Smith et. al., 2004). It is therefore clear that cooperation between teachers plays a significant role in order to reduce early school leaving.

Hanushek et al. under (2005) draw attention to the fact that the difference in performance between schools is mostly due to differences in teacher quality. This is also confirmed by the McKinsey report (2007), which calls attention to the joint realization of three factors for the good performance of the education system, which highlights the quality of teacher work: committed people should be oriented towards the teaching career, they should become effective instructors during their training, and everything the system provides the highest quality education for the child. In the professional capital theory of Hargreaves and Fullan (2012), it is also highlighted that the human, social and decision-making capital applicable to the teaching profession is decisive for school effectiveness. Human capital means the sum of individual qualities, knowledge, and skills. Social capital refers to the resources in the relationship system, with special emphasis on cooperation. Decision-making capital is a resource derived from gaining professional experience alongside experienced colleagues doing quality work. In addition to professional knowledge, the ability to cooperate is emphasized, as teachers must constantly make decisions in response to complex situations (Nagy, 2017). Individual professional problem solving goes beyond the current situation, the teacher innovates, and thus makes a professional decision that is able to see the phenomena in a system beyond the one-time current problem solution, and to offer the acquired knowledge to others. Teacher effectiveness can therefore be derived from a complex capital model: the expansion of

professional capital includes the acquisition of knowledge and skills (human capital), participation in networks of collaborative learning communities (social capital) and the ability to make professional decisions frequently (decisional capital) (Nolan-Molla, 2017). It is a fact that the work of the teacher is very important, it has a great impact on the success of the students. Since competitiveness and the sustainability of knowledge-based societies are prioritized both on the international and domestic scene, there is an increase in the value of education, the key players of which are teachers (Paksi et. al., 2015). In possession of their human capital, they are able to respond to changing situations during their professional cooperation with the help of their decision-making capital (Hargreaves-Fullan, 2012). Their continuous professional development is the source of their motivational base that can be activated.

Teacher motivational factors for effectiveness

Professional cooperation should appear as a motivational factor in teacher behavior, which has a positive effect on student achievement and teacher retention. In addition to professional development, the literature links teachers' motivation to the existence of many other factors, separating extrinsic and intrinsic motivational factors. Intrinsic motivation can be identified as an internal tendency to seek novelty and challenge. During extrinsic motivation, some external factor plays a role in the motivation of behavior (Paksi, et. al., 2015). In the case of both types, individual and motivational factors related to the teaching career can be identified. Individual internal motivations include altruistic motivation such as: society contribution, the social shaping role of teaching (Watt et. al., 2012), the self-rewarding nature of the career (Chrappán, 2012), its self-realization (Manuel-Hughes, 2006), knowledge transfer its inherent beauty (Barmby, 2006) and the creation of lasting values (OECD, 2005). Factors of internal motivation related to the teaching career are the following: the joy of working with children (Kocsis, 2002; Chrappán, 2012), helping students to achieve their success (Barmby, 2006), having an impact on students' lives (Jenkins et. al., 2011), the the joy of dealing with people (Schultz, 2001). Among the individual external motivations, we find the possibility of professional development (Kocsis, 2012) and building an intellectual career (Jancsák, 2010), compatible with both family and private life (Jenkins et. al., 2012). The external motivational elements of the teaching career include positive experiences related to previous teaching (Berger-D'Ascoli, 2012), employer expectations (Chrappán, 2012) and factors related to working conditions, a good faculty atmosphere, satisfaction with teaching (Chrappán, 2012).

Ryan-Deci (2018) writes about the close relationship between external and internal motivational factors. The essence of the autonomous motivation formulated by them is that it considers the individual as the starting point of the teacher's behavior. This does not mean the exclusivity of intrinsic motivation, because internalized external motivational schemes can equally be the source. For this to happen, the external motivation (expectations, conditions) must meet the teacher's needs and views, so the need to act still comes from within. Autonomous motivation can also be observed in teachers who are committed to their own professional development, where various external motivations can be interpreted as a supportive environment essential for effective pedagogical work and professional development (Ryan-Deci, 2000).

In the course of our research, based on the background of the international literature, we looked for the answer to the question of what motivational factors influence a teacher to become innovative in a disadvantaged environment in Hungary. By innovating, the teacher would thus be able to make adequate decisions. With his professional capital and using his network of contacts, he could strengthen his career stability. Our research question also asks the following: what are the motivational factors that can be identified as barriers to the development of innovations? The results of the research can help in the development of teacher training and the incentive system for teachers in the field.

Methods

One of the determinants of student performance is student composition. The PISA tests show that in Hungary the dispersion of results between schools is greater than in the OECD average, and that student composition predicts achievement in 65% of cases (Bacskai, 2015). The teachers who teach here have special working conditions, they can achieve results with other methods. Moreover, Hungarian researches focus on the fact that teacher collaboration plays a weighty role in schools with low student composition. Teacher collaboration is aimed at student success and overcoming disadvantages arising from student composition.

In the course of our qualitative study, we conducted semi-structured interviews among teachers teaching in the secondary institutions of disadvantaged regions. The interviews were recorded between January and May

2021. During a qualitative content analysis, we compared teachers who developed educational innovations and those who did not. The selection of respondents with stratified sampling is a story. We conducted 24 interviews, in which innovative and non-innovative teachers teaching in high schools and vocational institutions were included in equal proportions. We did not select the innovative teachers by self-declaration, but we sought out those who had registered good practices.

The texts transcripts of the semi-structured interviews were subjected to a qualitative text analysis using the Atlas Ti.7 program. The process of content analysis made it possible to objectively analyze recurring motifs. Some sections of the text corpora were coded, and a mixed (inductive and deductive) procedure was used during coding. Bearing in mind the specifics of the deductive theory-driven procedure, before the research, based on the examined dimensions, we developed the aspects that gave the code system of the later code network (deductive theory-driven coding). After that, we also applied an inductive procedure based on the mappings of the individual life story structures, the text segments belonging to the main codes were broken down, and subcodes were created (data-driven analysis). According to the variable oriented/theme-centric analysis, we performed a classification according to the research dimensions. In order to increase the reliability of the process, the main codes were coded twice (intracoding). During the analysis of the interviews, the exploration of similarities and differences was an important goal. (Mítev, 2012). Based on grounded theory, our research goes beyond the dense description of life stories, and we strive to study, compare and systematize the investigated phenomena according to the category system of the previously established code network.

Results

First, we using the text analysis program Atlas Ti.7, we examined the transcripts of the interviewed teachers who submitted the educational innovations. The presence of both individual and work-related factors related to external and internal motivation revealed in the literature was observable in their case. What is more, we also identified additional determining factors in the development of registered innovations (Table 1).

Table 1. Motivation factors and sub-factors in the group developing educational innovation

Superfactor	Factor	Subfactor
Intrinsic motivation	Individual internal motivation	The rewarding nature of the career
		Self-realization, diversity
		The inherent beauty of knowledge transfer
		Passing permanent values
	Internal motivation linked to work	The joy of working with children
		Helping students achieve success
		To have an impact on students' lives
		Possibility of parental contact
Extrinsic motivation	Individual internal motivation	Promotion of the school
		Possibility of professional development
		A sense of job ownership
		Financial benefits
	Internal motivation linked to work	The possibility of developing an intellectual career
		Positive experiences related to previous learning and teaching
		Employer expectations
		Employer support
		Professional contact with other institutions and organizations

Internal individual motivational factors confirmed in previous research results were found during our investigation. These factors are as follows: rewarding career nature of the field, the need for self-realization, variety, the natural beauty of knowledge transfer, the transfer of lasting values, the joy of working with children. In the case of work-related internal motivational factors, in addition to helping students achieve

success and influencing their lives, the interviewees attributed an important role to the possibility of parental contact and the promotion of the school. Among the external individual motivational factors, we detected the possibility of professional development, the important role of job security, the importance of financial benefits and the possibility of building an intellectual career. In the case of work-related external motivational factors, the interviewees considered important the role of positive experiences related to previous learning and teaching, the stimulating role of employer expectations and employer support. Furthermore, we discovered another motivational factor in this circle, which was the stimulating effect of contact with other institutions and organizations for the development and registration of educational innovations. The results of the research confirmed the professional capital theory model of Hargreaves-Fullan, according to which the innovative teacher strives to develop his own professional capital, while constantly expanding his network of relationships. With the help of all this, using his decision-making capital, he can effectively respond to pedagogical situations.

Next, we investigated which lack of motivational factors hindered the development of educational innovations and their registration. The lack of stimulating factors revealed in the first stage of our research on motivation cannot be identified in all cases, however, we discovered the existence of new factors related to the lack of motivation, thus influencing the retention of teachers in their careers (Table 2).

Table 2. Lack of motivation regarding the non-registration of educational innovations

Superfactor	Factor	Alfactor
Intrinsic motivation	Individual internal motivation	Lack of need for self-realization and variety
		Lack of self-confidence
		Burn-out
	Internal motivation linked to work	Personal crisis
		Differences between generations
		Methodological deficiency
		Lack of subject methodological challenge
Extrinsic motivation	Individual internal motivation	Lack of opportunity for professional development
		Lack of material benefits
	Internal motivation linked to work	Negative experiences related to previous learning and teaching
		Exaggerated employer expectations
		Unsupportive faculty atmosphere
		Overload
		Lack of interest from colleagues
		Different direction of professional interest among colleagues
		Lack of information

In addition to the lack of self-realization, lack of need for variety, and lack of self-confidence, which represent a lack of individual internal motivation, difficulties caused by burnout and personal life crisis were identified. As a lack of motivation related to the individual workplace, we encountered a low degree of effectiveness on the students' lives, and also generational differences, methodological deficiencies, and a lack of subject-methodological challenges appeared among them. We also classified the lack of professional development and financial benefits as barriers to individual external motivation. As a lack of external motivation related to work, negative experiences related to previous learning and teaching, excessive employer expectations, a non-fertilizing, hostile workplace atmosphere appeared. Moreover, we discovered other negatively influencing sub-factors such as overload, lack of interest from colleagues, varying professional interests among colleagues and the lack of information. In several cases, the factors showing a lack of motivation could already be identified in the years following the start of the career. Due to neglect of this issue combined with the lack of additional motivational factors, innovative behavior diminished in colleagues, and teachers abandoned their careers.

Discussion

In Hungary, the number of applicants for teacher training has decreased greatly, and there are many who already are teachers who leave their careers. A large-scale research based on data collection in 2020/2021 dealt with the career motivation of in-service teachers (Paksi, 2023). According to his results, the intrinsic motivational factors have the most significant effect on career choice and staying in the career. The shortage of teachers is therefore one of the most pressing problems of today's education, a problem for which a solution must be found. Our research revealed that giving priority to these factors results in the improvement of professional life, the creation of a better school atmosphere, the provision of new career paths, and avoidance of the harmful consequences of stress and burnout. All things considered, making the profession more attractive in disadvantaged areas of the country is worth discussing.

In the case of both groups of teachers, both internal and external motivational factors related to the individual and workplace were identified. Our previous research (investigating the life path of teachers in the dimensions of the accumulation of human and social capital) showed that, combined together, the extracurricular undertakings of higher education, the open, diverse (inter-institutional and cross-border) network of professional relationships, along with the rich interpretation of roles enhanced by professional self-realization, and activity all depict the type of teacher who registers innovation. By comparing the results obtained during our investigation into the motivational willingness of teachers, we came to the conclusion that our previous finding was confirmed. Those previous results said, the motivational lack of registration is based on the lack of work-related external motivational factors that, when the respondents were younger, were already identified in through the narrow professional network, and in relation to the lack of professional self-realization. The key to student success is for teachers to use their relationship capital provided by their job to make good decisions, thereby allowing them to answer challenges and create good practices. The foundation of the motivational base connected to the registration of innovations is built upon individual factors. These individual factors includes both individual and workplace motivational factors. When pitting our results against previous life course studies, we found that among the registered teachers there were those inspired by a strong internal drive, while they were still able to make professional decisions, thanks to both external professional relationships and self-realization. Our research also highlighted that parental involvement in pedagogical work encourages teachers to be innovative educationally.

Conclusion

In summary, it can be said that the international and domestic literature pays particular attention to the cooperation of teachers and the effectiveness of that collaboration in terms of student performance. It is clear that isolated teacher behavior cannot be sustained long term in the world of a performance-oriented education system. We need a leader who can use the capital created in the community for the benefit of the students. On the part of the teachers, the need for common knowledge acquisition and continuous feedback regarding the effectiveness of their work is essential.

Our research also drew attention to the fact that the support and assistance of innovative teachers teaching in disadvantaged areas at the systemic and institutional level is essential in raising student achievement and keeping teachers in the teaching profession. Therefore, in the course of making educational policy decisions, it is extremely vital to take into account the necessity to develop a system that encourages the career of the creative, innovative, and researching teacher. The creation and stability of a legal framework that develops and supports continuous professional development and innovation potential is a fundamental condition for the quality improvement of education. In teacher training, greater emphasis must be given to the building out of continuous professional growth, and to the level of readiness to respond to challenges in a scientific and professional manner. In the course of further teacher training, competences that help teachers cooperate and hone their problem-solving abilities must be improved, for, it is with the help these that they can better apply what they already know in new ways.

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