Thematic Article

Characteristics of Teaching Community Capital - Focus on Teachers in Reformed Public Education Institutions

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Abstract

The issue of the effectiveness of teaching is constantly at the center of research. "Teachers count", presents the OECD report (2005), which confirms the research of the day that the work of the teacher contributes significantly to the performance of students. The question is how to capture the factors that influence school performance. The focus of the examination of the theoretical background is on the professional capital theory, with the emphasis on the examination of social / teaching capital in addition to the human capital and decision capital components. Our research is based on a secondary analysis of a questionnaire among teachers working in Calvinist institutions in 2017. The focus of our interest is on identifying the characteristics (frequency) and content (agreeing with norms) of staff capital and the need for teachers to develop collaborative networking opportunities for future professional development.

Keywords: efficiency, human capital, collaboration

Introduction

According to Hargreaves and Fullan (2012), teaching profession is characterized by the following segments: human capital, social capital and decision-making capital of teachers. The concept of human capital was first used in the literature of economics. At this time, the phenomenon of human capital began to be treated as a useful and valuable pool of knowledge accumulated through education and training (Samuelson-Nordhaus, 1992). We consider human capital to be the learned knowledge by which one can produce material goods and services or increase their value (Gősi, 2007). Teachers' human capital refers to high-level professional knowledge, commitment to continuous learning, professional development, effective coping with challenges, years spent in careers, personal development through the use of knowledge, and personal characteristics (Bacskai, 2015; Vámos, 2016). By examining the dimensions of social capital, its structural and relational dimensions can be distinguished. The former is based on the quantitative aspects of relationships, while the relational dimension considers the qualitative aspects of relationships, examining its strength, durability, and emotional intensity (Pusztai, 2015). The latter aspect is an important role in the efficiency of education in terms of regular cooperation between teachers. Research interprets teachers' out-of-school and out-of-school activities as a source of intragenerational capital: conscious preparation for the teaching process, collaboration with teachers, and teamwork (Bacskai, 2015). The uniformity of the content and form of community relations is characterized by what Coleman calls the closure (Coleman, 1990, by Pusztai, 2015). All of this confirms that teachers' social capital should be given special attention in research, focusing on teacher collaboration and collaborative learning (Hargreaves-Fullan, 2012). Social capital refers to the resources in the relationship system. Importance for this type of capital is the professional individual activity among professional colleagues,

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the interaction between parents, authorities, cooperation and the teaching environment (Vámos, 2016). Thurlings-Evens-Vermeulen (2015), in modeling teacher innovative behavior, pointed out that this behavior can be described as the process by which new ideas are created, developed, applied, promoted, implemented and modified to be effective. Various reasons, such as rapid technological changes in society, make it necessary for teachers to be innovative. Interactions within the teaching staff and the familiar teaching staff are key to starting the process of change at school level (Moate, 2011).

One of the tasks of the school is to provide students with a high level of knowledge acquisition, the success of the work there is the key to their future progress. International studies also focus on the role of teacher collaboration and the components of its effectiveness, while pointing out that some teachers are still in the "egg-box" model (Dan Lortie, 1975, quoted by Schleifer et al., 2017), working in isolation. From a physical point of view, this term approaches the isolated work of classrooms along corridors. This egg-crate model is dominant in Hungary -especially at secondary level-, which means that cooperation in organizing teachers' work is relatively rare. According to Johnson (2015), the "crate of eggs broken down into atoms" cannot implement or reinforce diverse teaching models. If schools are set up like egg compartments, the classroom area will place limits on teacher expertise and collaboration. All this makes it difficult to make full use of the expertise of colleagues and to share their experience with others. According to the traditional egg compartment education model, teacher effectiveness is attributed solely to the self-acquired knowledge and skills (Bryk, 2010). It is clear that cooperation in other professions, eg research, health, architecture, performing arts is very important, but it is also important for teachers to collaborate to learn from each other, coordinate their lessons, discuss their experiences and ideas. Vangrieken et. al. (2015) created a typology of collaborative activities and structures. The group is seen as a collection of individuals who share a common purpose and identity. A team is a group that has common goals that can be accounted for jointly and that team members depend on each other to complete tasks. The term "community of practice" (Lave-Etienne, 1991; by Vangrieken, 2015) indicates that members have 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 culture of collaboration characterized by common values and a vision; and which extends across all groups or other types of teacher across the school or school network. Problem solving must go beyond the walls of the classroom, and the importance of classroom confidence building among teachers is crucial to developing students' vision (Bryk, 2010).

Research by Killion (2015) points out that when teachers engage in high-quality collaboration, there are both collective and individual benefits. A large-scale study on teacher collaboration practices concluded that good quality collaboration among teachers primarily results in increased student performance (Killion, 2015). In addition, the characteristics of teachers, school characteristics and the added value of teachers were examined. The results showed that teacher collaboration has a positive impact on teachers and their students. The study also showed that there are differences in the type of cooperation between different school types: primary school teachers are more likely to cooperate in education than secondary school teachers. There is also a gender gap: higher quality collaboration is more common among female teachers than with male teachers, especially in curricula and assessment. DuFour and Eaker (1998) stated that improving school performance as a professional learning community significantly improves school performance. Harpe (2014) identified four key elements of teacher collaboration: time spent working together, common goals, result orientation, and collaboration. The time spent working together must be set at regular intervals, with the support of the director, in order to be effective. The time we spend together is necessary to build the necessary confidence to work together and collaborate. In order to achieve common goals, it is necessary to clearly identify the areas where change is necessary, so that collaboration must succeed. Collaborations also provide opportunities for teachers to look at each other's good practices, discuss what they have seen, and adapt the new strategy they have learned from their colleagues. This discourse provides opportunities for professional development and learning between groups. In developing new strategies, colleagues can share experiences and hear constructive criticism. One of the important criteria for creating a successful cooperation environment is helping one another. Vangrieken et. al. (2015) emphasized the following characteristics of effective teacher collaboration: regular, open and frank discussion among team members, active monitoring of innovations in the education world, clear definition of team roles and responsibility, adaptation appropriate curricular changes in education, appropriate efforts to collaborate. Furthermore, it is important to have the appropriate competences: knowledge, skills and strategies to complete the tasks, structural, informational and educational support from the school head. Woodland et al. (2013) highlight the cyclical nature of teacher collaboration. Decision-making is a key element for the teaching community. These include maintenance decisions (eg budget), security decisions (eg class security, discipline),

organizational activity decisions, assessment decisions, and educational decisions (what and how to teach). Action is a key element of cyclicality, because if teachers do not take action as a result of team decisions, the cycle will continue and further development will continue. Evaluation of practice is a critical element of the cycle. The analysis and evaluation of continuous qualitative and quantitative data has a significant impact on the quality of education. During the dialogue, teachers reflect on what they have experienced and make new decisions. Analyzing qualitative data, Harpe (2014) found that even a few negative colleagues or collaborators may hinder school development in teaching staff. School leaders therefore need well-to-use, accurate action plans to make productive teacher collaboration an integral part of school work. The researchers have developed a measuring tool that can be used by principals to quickly and accurately identify teacher collaboration weaknesses. Rose (2008) also emphasizes collaboration to increase student achievement, which identified the following elements: school culture and climate; clear goals; monitoring the results; expedient use of time; 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. McLaughlin - Talbert (2001), in their research in secondary schools, pointed out that innovative teachers did not become independent in weak cohesive teaching communities, and accepted that their colleagues, especially the underperforming students, did not invest extra energy in teaching. learning process. In schools with strong, traditional communities, innovative teaching ideas have been pushed into the background, putting the central expectations and their testing at the forefront. In strong, collaborative educational communities, teachers were able to generate and test new ideas to help more students get to know the curriculum. Under the leadership of Bryk (2010), a Chicago University research team has developed a school support model to better understand why some schools are able to show innovative tendencies in favor of students and others. The emphasis was on the 'professional capacity' of the school, which includes many elements: the quality of human resources, the quality of professional development, the rules of continuous development and the professional community itself. Called the "professional community", Bryk refers to the fact that, in this collaboration, teachers make their work public, their results, critical issues, and commitment to student development. Their research found that schools with a strong professional community were four times more likely to experience strong improvement in students' reading and math scores than those with a poor professional community. Effectiveness was further enhanced by the combination of the professional community with a coordinated curriculum. Bryk (2010) also points out that principals play a key role in promoting collaboration that improves student achievement. Longitudinal studies by Bryk (2010) at an elementary school also confirmed that the director's professional capacity, which involves operational reforms and educational development in operational management, is a prerequisite for achieving results. International research also focuses on whether teacher collaboration improves teacher satisfaction and educational practice. Vangrieken (2015) and his colleagues found that teachers who are willing to work collaboratively are able to move forward in terms of the effectiveness, quality of their work, and strive not to work in isolation, much more than their isolated peers. A separate question arises as to whether the level of cooperation is influencing the departure of teachers from their careers. When teachers leave school, professional skills and collegial relationships are lost, which is quite time-consuming for the teaching staff. Collaboration can be considered as a factor that can help teachers become committed to their school and career (Kraft et al., 2016; Johnson et al., 2012). There is a particularly high drop-out rate among novice teachers. According to researchers who conducted in-depth interviews with teachers in the first four years of their careers, novice teachers felt better in schools where they received more support from their colleagues (Smith et al., 2004). It is clear that cooperation between teachers is also important in order to reduce early school leaving. Interestingly, a case study in a rural high school (Chance et al., 2009) draws attention to this: after the headteacher initiated collaborative reforms, nearly half of the school's staff left the institution before the start of the next school year. The headmaster noted that the high rate of emigration made it possible to recruit a team of dedicated children and to introduce cooperation reforms.

The success of institutional innovations also clearly illustrates the role of social capital in teaching communities, which can be described by the innovation triangle model (Engeström 1999, quoted by Fazekas, Halász & Horváth, 2018): the complex task, the cognitive activities required and the participants interaction. Facing a problem and a challenge breaks the routine of everyday life, and in response, creative thinking is the answer. This process involves community-based learning in which the people who interact interact with each other to create innovations based on their experience and professional knowledge. Through community learning, the challenging community (with a focus on a prominent member - "local hero") will find the right information for a particular problem while renewing itself and its environment. With the power of the community, blending previous information with new elements, it creates an unknown so far, spread through

networking (Kozma, 2018). By examining the nature of bottom-up educational innovations, we can identify similar relationships: schools are sensitive to the regional challenges they are facing, which they are trying to address locally and find solutions. One or a few members of the teaching community become proactive and develop practices that can make a difference in school life. A condition for the survival of bottom-up innovations, like social innovations, is the need to break through the local network in order to become widespread and effective. Conversely, it remains a local initiative, a piece of data in the life of a community. In the case of educational innovations, the question is whether they are able to adapt their knowledge, methods and working mechanisms quickly and efficiently to change. All this entails risks for schools. The establishment of a social network enables the effective spread and innovation of innovations.

Decision capital is a resource derived from gaining professional experience alongside experienced colleagues who carry out quality work. The profession of educator involves a complex workflow where, in the spirit of professionalization, the educator himself, as a professional, needs to be able to navigate in a complex, dynamic field of interaction with many interactions and to make adequate decisions based on the tools at his disposal. Of the three elements of professional capital, decision-making capital is the weakest in the domestic environment. The growth of the professional capital of the school is mostly done through the supply of human capital. In the absence of new resources, ie without increasing social and decision-making capital, it carries the risk of the loss of human capital (Vámos, 2016).

The basis of the analysis is a research conducted in 2017 among teachers and headmasters of the Reformed public education institution (N = 328) (Pusztai et al., 2017). The questionnaire focused on professional careers, educational and teaching activities, teachers 'needs for preparation for Reformed teaching, teachers' needs, plans and the educational work of the institutions. Our current research focuses on mapping the social / curricular capital of educators, with a focus on identifying the formal and content characteristics of curriculum relationships, and the need for future collaborative training for further training. In our research we sought to find out what characterizes the staff of the teachers involved in the study by examining the formal nature of the relationships in terms of frequency, and the strength of the network of teachers in the various types of Reformed educational institutions, or has it become a new church after a change of maintainer, and how important for teachers in Reformed educational institutions to develop a network of collaborative relationships for future training? It is hypothesized that in all the examined institutions, the formal characteristics of school-board relationships can be said to be low in frequency, while in the case of content characteristics, there is a strong consensus in institutions previously maintained / operated by the Church due to strong religious identity. Compared to this, there is a weaker consensus among educators in newly ecclesiastical institutions because of the different values they bring with them. We hypothesize that, due to the strong content characteristics of collaboration, teachers in Reformed educational institutions will be less likely to develop skills in networking for collaboration in the future.

In the first step we summarize the number of institutions and we examine the hypothesis testing by institution type (Table 1). The results clearly show that the number of respondents is overrepresented in primary schools (162 people), while in the case of vocational secondary schools one person gave a valid answer.

Table 1. The number of institutions and teachers examined in the light of institutional data

ISCED	number of institutional units	number of teachers
Kindergarten	15	27
Primary school/ lower elementary school	28	87
Upper elementary school	32	75
Secondary school/high school	18	87
Vocational secondary school	8	14
Secondary school	1	1
Basic art education institution	7	19
Other	16	18
Altogether	**125**	**328**

(Pusztai et al., 2017)

The data in Table 2 show the response activity per church district, which shows that most (155 people) provided data from the institutions of the „Disadvantaged region", while 13 from „steadily developing regions" responded.

Table 2. Number of respondents per church region

Church region	number of respondents
„Disadvantaged region(s)"	155
„Developed region(s)"	87
„Slowly evolving region(s)"	73
„Steadily developing region(s)"	13

(Pusztai et al., 2017)

Examining the formal nature of the relationships between the teachers we were curious as to the frequency with which the teachers of the different school types have colleagues with whom they have regular professional interviews? The results show that there are professional discussions with more than two colleagues for each type of school, but this does not extend to all members of the teaching staff (Table 3). Teachers need to collaborate, which in most cases takes place in work communities. However, there is little scope for collaborative collaboration across the teaching staff, which can be explained by teacher overload. Teacher staff working in kindergarten is more likely to need collaborative collaboration (33%). This can be explained by the smaller number of kindergarten teacher staff members who can communicate with each other more easily.

Table 3. Percentage of teachers engaged in professional interviews

ISCED	1-2 colleagues	2 or more colleagues	almost the entire teaching staff
Kindergarten	22%	**45%**	33%
Primary school/ lower elementary school	17%	**64%**	19%
Upper elementary school	16%	**57%**	27%
Secondary school/high school	17%	**74%**	9%
Vocational secondary school	14%	**65%**	21%
Basic art education institution	36%	**43%**	21%

(Own edit)

In the next phase of our research it is important to consider the proportion of teachers in institutions that are previously and newly Church-run. Based on the results of the basic statistics (Table 4), it can be seen that in the case of the „Developed region(s)", the ratio of teachers working in church institutions was the highest (81.8%), the lowest in the „Disadvantaged region(s)" (29.7%), and most respondents came from the „Slowly evolving region(s)" (70.3%), and the least from the „Developed region(s)" (18.2%).

Table 4. Percentage of respondents from teachers in formerly ecclesiastical and newly ecclesiastical institutions

	„Developed region(s)"	„Steadily developing region(s)"	„Disadvantaged region(s)"	„Slowly evolving region(s)"
Previously church-run	81,8%	8,5%	29,7%	58,9%
Newly church-run	18,2%	1,5%	70,3%	41,1%
N	87	13	155	73

(Pusztai et. al., 2017)

Consensus on norms was used as the basis for examining the content relationships of the teaching staff. Factor analysis (Pusztai et al., 2017) showed that 4 problem areas can be distinguished according to the sub-questions of which teachers' opinions move together. One focuses on the content of institutional culture, the second focuses on student norms at school, the third focuses on student risk behavior, and the fourth focuses on the professional role of the teacher (Table 5).

Table 5. Factors in the consensus areas of the teaching staff

institutional culture	student norms	student risk behavior	professional role of the teacher
teacher-student communication	hairstyle of the students	out-of-school smoking	preparation for competition
student's utterance	students dressing up	out of school entertainments	catching up development
institutional habits	matter of discipline	student relationships	educational activity
institutional events		delay	religious education

(Pusztai et. al., 2017)

In the next section of our research we investigated the characteristics of institutions that became ecclesiastical before or after 2010 using variance analysis in terms of their content. Depending on this we analyzed the factors of the school consensus area for agreeing on school norms. The study found a significant correlation in that the time of becoming an ecclesiastical institution has an impact on student standards. In the case of post-2010 institutions, the need for student behavior to reflect the religious spirit of the school increased significantly (70.2%). For institutions that have become church-run, this expectation is low (29.8%), which can be explained by the fact that they have already had high expectations for student norms, and other areas of consensus have played a greater role.

In the following we sought to answer the question of the relationship between human capital and teaching staff capital as regards the need for teachers in the Reformed Church institutions to acquire collaborative skills

in future training courses. The data show (Table 6) that in each of the four areas examined (effective problem solving; professional cooperation; effective communication; evaluation and analysis of pedagogical processes), the teachers who responded felt it was extremely important to organize further training to strengthen collaboration. Respondents could use the five-level Likert scale to indicate the extent to which they consider the area to be important in the future. Kindergarten teachers need a great deal of new knowledge in all areas. Teachers working in other types of institutions were identified as having the greatest ability to solve problems effectively (57%) and effective communication (49%). Professional cooperation trainings also important among teachers (45%), while the least (31%) had the analyzing and evaluating pedagogical processes.

Table 6. The need for continuing professional development training for teachers

	effective problem solving	professional cooperation	effective communication	evaluation and analysis of pedagogical processes
Kindergarten	73%	68%	70%	57%
Primary school/ lower elementary school	54%	35%	43%	35%
Upper elementary school	43%	39%	42%	25%
Secondary school/high school	46%	33%	43%	18%
Vocational secondary school	53%	38%	46%	15%
Basic art education institution	77%	61%	50%	41%

(Own edit)

Summary

The research was based on a research conducted in 2017 among teachers and headmasters of the Reformed public education institution. Our aim was to map the teaching staff capital of the teachers, focusing on the exploration of the formal and content characteristics of the teaching staff relationships and the need for the development of collaborative ability in the educational work of the interviewees.

Examining the formal characteristics of the relationships, our hypothesis was only partially proved, because in each type of school the respondents have several colleagues with whom they are able to collaborate. Collaboration across the curriculum was most common in kindergartens and least in high school teachers. In the case of content relations of the teaching staff relations, we examined the agreement of the norms, which showed that there was a significant correlation between the institutions that became ecclesiastical after 2010 in that they considered the consensus in the student norms to reflect student behavior the religious spirit of the school. In the case of further training the teachers identified the area of skills and abilities that facilitate collaboration as an effective problem solving priority.

Our research has highlighted that the mapping of the content and form of the capital of the teaching staff plays an important role. Since the social and relational characteristics of the teaching staff's capital are related to the educational effectiveness (Pusztai, 2015), in our future research we will seek to find out what relationships can be found regarding the effectiveness of the examined schools and the teaching staff cooperation.

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