

# The Complementary School-University Partnership Through the Lens of a Learning Community

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## Abstract

The paper includes the results of a descriptive case-study in which a university-based Hungarian practice school is compared to the model of Professional Development School. Data sources include school teachers (N=102), university educators of subject methodology (N=20) and pre-service teachers doing their group practice at the university's practice school (N=22). The data were collected via a set of questionnaires and analyzed with descriptive and mathematical statistics. The open-ended questions were content analyzed with an open coding process of the answers. The results proved that teachers and university educators in complementary university-school partnership are very far from the core concept of Professional Development School. Cooperation of teachers and university teachers does not take privilege in any parties' beliefs. The main goal of the school practice is to improve candidates' individual skills, but those of enhancing collaboration are not developed adequately. Furthermore, the lack of cooperation is a relevant issue among school teachers concerning their beliefs related to the teaching-learning process.

**Key Words:** Teacher education, school practice, professional development school, university-school relationship

## Introduction

Hungarian Initial Teacher Education (ITE) is based on a concurrent model which means that the theoretical component and practical training are given at the same qualification time (European Commission, Eurydice, 2015). The Hungarian system of ITE (aimed teaching level: ISCED 2-3) has had some structural changes during and after the Bologna reform. In the current model (working since 2013 with a 5+1-year ITE program), practice gains more emphasis in the structure, similar to other European countries. It is noticeable that most European trends concerning re-modelling ITE in the last decade took a kind of "practical turn". These directions emphasize the role of researches on different levels and forms as well as the role of - real school setting (Murray, et al., 2019). In spite of the changes in Hungary, the basic features of the training system have remained, and it has not become more effective either (Stéger, 2014).

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<sup>3</sup> ISCED: International Standard Classification of Education is designed to serve as a framework to classify educational activities as defined in programmes and the resulting qualifications into internationally agreed categories. (Unesco, 2012)gersoll, Merrill, & Stuckey, 2014).

In Hungary, the structures of the training courses start from the theoretical preparation. Pre-service teachers need to take part in three kinds of school practice. There are two (short) school practices in group form of the candidates parallel with the theoretical courses set in a university-based practice school. After the training, there is a long individual teaching practice (“block practice”) at a non-university based school (Hungarian Government, 2012). During the first short practice, pre-service teachers can have a look into the general structure and working process of the school by doing simple researches with questionnaires, making analysis of the school documents and doing lesson observation. The aim of the second short practice is to investigate subject teaching and to improve candidates’ teaching skills by lesson observation, lesson planning and micro-teaching. These practices take place in the university practice school in group form (5-7 candidates with the tutorage of one supervisor). The third kind is teaching practice alone at the end of the training process in a regular school that is independent of the university. This study focuses on the first and second types of (short) school practice because it is connected to the University Practice School.

The Hungarian system works with what is called a “complementary” university-school partnership, which means that the maintenance agency of the practices schools is the higher education institution. It defines the main structure of the ITE, as well as the role and task of the practice school according to the current laws. This academic, or university-based, system belongs to the “Theory to practice model” (Carlson, 1999), or “Application of theory model” (Korthagen & Kessels, 1999). However, it aims to achieve the complementary partnership by giving some responsibilities to the partner institutions, the problem is that both the university and the practice school have their own responsibilities, but the real integration of different fields is missing (see Furlong, 2006). Hence, some problems were identified in this kind of ITE system, such as: the fragmented and mosaic structure of the university disciplinary, psychological, pedagogical courses; the lack of practical instructions of the theoretical content; too much emphasis on improving individual knowledge and competences but little attention paid to teachers’ cooperative work (Feiman-Nemser, 2001; Darling-Hammond, 2006). The isolation of the university courses, as well as the missing element of improving candidates’ collaborative skills, lead to some challenges for novice teachers: inability to link the pieces of subject, psychological and pedagogical knowledge and transfer them into practices; the lack of procedural skills especially on the field of class management and meeting student needs (Putnam and Borko, 2000; Hagger & McIntyre, 2006; Vick, 2006; Jensen, et al., 2012). That is why ITE systems like the Hungarian one need to be reformed into a more practice-focused and collaboration-based system in order to be able to address these discrepancies. Collaborative practice among teachers is crucial because it has a high effect on self-efficacy and job satisfaction (OECD, 2014). Professional Development School (PDS) is one of the ITE models that has a specific focus on these aspects.

The concept of PDS arose in the USA more than twenty years ago. The complex system provides professional preparation through enhanced learning opportunities, achievements for pre-service teachers, as well as ongoing education and development for experienced professionals (The Holmes Group, 1986, 1990). The goals of the organizational model are teacher candidate's preparation, professional development of in-service teachers, supporting action researches and dissemination of innovations, as well as the improvement of students' school experiences. An additional goal for some PDSs is to provide supports to under-resourced urban schools and to facilitate change in restructuring schools (Clark, 1999; Levine, 1997).

PDS partnerships function as Learning Organizations (Communities). They aim to support continuous improvement in both schools and universities. Sharing Senge's (1990) opinion, Garvin (1993) created his definition about a Learning Organization which is: „... an organization skilled at creating, acquiring, and transferring knowledge, and at modifying its behavior to reflect new knowledge and insights.” (Garvin, 1993, p. 80.). Therefore it focuses on five main activities. The organizational model of PDS integrates these activities into a complex system of daily operations and mechanisms helping continuous improvement and commitment to learning:

- *Systematic problem solving*: employees are accurate and precise in problem-solving. They push beyond obvious symptoms to assess underlying causes, often collecting evidence when conventional wisdom says it is unnecessary.
- *Experimentation*: employees do systematic research and testing of new knowledge. Experimentation is usually motivated by opportunity and expanding horizons, not by current difficulties.
- *Learning from others*: learning can be achieved by looking outside one's immediate environment to gain a new perspective. Enlightened managers know that even companies in a diverse range of businesses can be fertile sources of ideas and catalysts for creative thinking.
- *Learning from past experience*: companies must review their successes and failures, assess them systematically, and record the lessons in a form that employees find open and accessible.
- *Transferring knowledge*: employees are involved in spreading knowledge quickly and efficiently throughout the organization. Ideas are shared broadly rather than held in a few hands. The mechanisms include written, oral, and visual reports, site visits and tours, personnel rotation programs, education and training programs, and standardization programs (Garvin, 1993).

This research aims to examine a typical Hungarian practice school that works in academic ITE environment with a complementary partnership in the light of the PDS model. The research questions are as follows:

- What kind of features of system thinking are achieved in the practice school?
- Who and how are involved in collaborative learning?

- What does experiential learning mean in the practice school?
- What possibilities of experimentation does the practice school provide?
- On what level and in what form is knowledge transfer and knowledge sharing achieved in the practice school?

## **Methodology**

### **Research method**

This research is a case-study. A case study is a specific instance (a child, a class, a school or a bounded phenomenon) that is frequently designed to illustrate a more general principle (Nisbet & Watt, 1984). Yin (1993) identifies three kinds in terms of case-studies' outcomes: (a) exploratory (as a pilot to other studies or research questions); (b) descriptive (providing narrative accounts); (c) explanatory (testing theories). The type of our study is a descriptive case-study in which a case school is compared to idealized theoretic patterns. A descriptive case study gives a complete description of a phenomenon within its context. It can show the crucial point by diagnosing the strengths and weaknesses of the case according to the examined aspect (Yin, 1993).

The case school is a typical practice school operating in a university-based model of ITE system. The idealized pattern in this study is the Professional Development School. Because of the typical case and the aspect of the examination the data suitable for generalization. The study is based on the examination of the case according to five main PDS factors: system approach (problem-solving), experimentation, experiential learning, collaborative learning, and knowledge sharing.

### **Sampling**

In this study, a case school (Eszterházy Károly University Practice School) is compared to idealized theoretic patterns (Professional Development School). The aim of the school selection for this study was to choose a typical university-based Hungarian practice school (see Stake, 1998). The case school is a part of Eszterházy Károly University which is one of the largest teacher training institutions in Hungary with around 3000 students. The University Practice school is located in Eger in the North-East of Hungary. It is an average primary and secondary school in Hungary as far as the assessment of children's performance is concerned according to the yearly statistics of Educational Authority. There are 1300 school children. The school has two main functions. It is a public school as well as a part of higher education. The school is a member of the Association of Hungarian Practice Schools.

The current study focuses on three sample groups concerning the higher education role of the case school: *primary and secondary school teachers* (N=102) of the practice school including student teacher supervisors (N=34); *university educators of subject teaching methodology* (N=20); and pre-service teachers (N=22) who do their

group practices during the research.

## **Research tools and data analysis**

### **Instruments and data collection**

The researchers developed three questionnaires: One for primary and secondary school teachers of the practice school including student-teacher supervisors (24 items); one for university educators of subject teaching methodology (nine items); and one for pre-service teachers (16 items). Some items were the same in each tool in order to make comparative analysis. There were also some items specified for each of the sub-sample. The contents of the questionnaires were linked to the five main topics of the research: features of system thinking achieved in the practice school, the possibility of collaborative learning, the possibility of experiential learning, the possibilities of experimentation, the forms of knowledge transfer and knowledge sharing. In order to provide a rich insight into the research areas, different types of questions were embedded: scaled-questions, one-choice and multiple-choice questions, open-ended questions. The scales were five-point attitude (Likert) scales (where 1: strongly disagree 2: disagree, 3: undecided, 4: agree 5: strongly agree.) (Likert, 1932). The mean with standard deviation shows people's satisfaction with the statements. For each subsection, a mean value of less than 2.0. was interpreted as 'low satisfaction', 3.0 as 'moderate', and greater than 4.0 as 'high satisfaction'. The data collection took place in online form.

### **Data analysis**

The data were analyzed with descriptive (frequencies, crosstab analysis) and mathematical (correlations, regressions) statistics by SPSS software. The open-ended questions were content analyzed with an open coding process of the answers. The open coding is a process where categories are not created before the data collection only after it. The reliability of the content analysis was proved by intercoding process, which means two or more coders work differently on the same corpus and after they check the consistency among the results of the coding. The reliability of the coding can be acceptable when the results are between 0,6 and 1. (Dafinoiu & Lungu, 2003 Lombard, et al. 2005). In our research the intercoding was done by two researchers, and the results were between .6 and .8.

## **Findings**

### **The sign of system-thinking in the training process**

#### **Teacher's beliefs about their principals' problem solving and decision-making process**

Referring to Garvin's *Systematic problem solving* (Garvin, 1993), the sign of system-thinking in the training was examined. First, teachers' opinion about their

principals' systematic thinking (including problem-solving and decision making) was explored by Likert-type scales. The teachers' satisfaction with their principals' identifying problems ( $M: 3.58, SD: .970^4$ ), problem solving ( $M: 3.50, SD: 1.01$ ) and learning from experiences ( $M: 3.43, SD: 1.05$ ) was moderate. The same refers to their principals' willingness to accept critical remarks ( $M: 3.07, SD: 1.15$ ). Teachers believed that collective decisions were mostly made by the staff after debates supported by principals (64%), but that the tasks were distributed by principals (74%) and not on voluntary basis. It can also be said that teachers were able to share their opinions without any bad consequences ( $M: 3.54, SD: .09$ ), and their opinions counted when innovations were planned ( $M: 3.82, SD: 1.04$ ), but they did not think that they were able to influence principals' final decisions ( $M: 4.25, SD: .84$ ). This could mean that principals are open to teachers' initiatives referring to innovations, but that they did not consider suggestions related to implementing them.

#### Teacher's view concerning professional development

The examination of systematic thinking related to professional development is a crucial point of the research. First, teachers' self-assessment was examined and then these findings were compared to the fields of professional development based on principals' promotion and teachers' needs. Data based on responses to Likert-type scale show that most of the teachers evaluated their professional content knowledge as excellent (92%), and they were dedicated to continuous professional development (86%). More than half of them were eager to follow up-to-date information concerning their profession (64%). Half of them (50%) wanted to share their professional content knowledge with other teachers, and were ready to take part in class observation activities (47%). Teachers' greatest needs were improving their ICT skills (44%), teaching children with special needs (41%), instructional practices as well as handling behavioral problems (33%). These findings also give evidence that there were no differences between international trends and the needs detected in the practice school (Jensen et al., 2012; European Commission, 2015). In the teachers' opinions, their principals preferred to support them in developing instructional practices (50%) and teaching gifted children (47%). However, teachers expressed their needs in developing teaching ICT skills (44%) and teaching children with special needs (41%). Supporting pre-service teachers' professional development seemed to be more important for principals (26%) than for teachers (13%). Taking student-teacher supervisors as a sample, supporting pre-service teachers was only slightly more important (18%) for them than for teachers in general.

Most of the teachers were aware of their principals' plans for teachers' professional development. 69% of teachers were sure that there was an official three-year plan for professional development, and 28% did not know about it. 3 % of them said

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<sup>4</sup> M= Mean; SD= Standard Deviation



that such a plan did not exist.

### **School teachers' views concerning the mission of the practice school**

Teachers', supervisors' and university educators' thoughts about the mission of the practice school were also examined by a multiple-choice question of 21 possible categories.

It became clear that all three sample groups ranked high-quality education and preparation of the pre-service teachers to the first and the second. Teachers (including supervisors) ranked providing solid moral values to children (3rd place) higher than university educators. Children's learning needs such as "Supporting children with learning difficulties" or "Preparing students for higher education" were ranked in the first five places by teachers and supervisors, whereas university educators gave preference to "Teachers' professional development". "Cooperation with parents" was ranked higher by university educators. "Building professional content knowledge" was more important for university educators of subject methodology (10th place) than teachers (16th place) and supervisors (14th place). "Innovation, knowledge transfer" and "Cooperation with the university in conducting researches either in disciplines or in pedagogy and psychology" took lower places on teachers' (including supervisors') list of the missions of the practice school.

To get a more detailed picture, it was also worth examining with a Likert-scale how important for teachers it is to adjust their teaching to children's learning needs. According to teachers, getting feedback from children ( $M: 4.84, SD: .36$ ) and focusing on children's learning needs is very important as a goal ( $M: 4.61, SD: .52$ ) but they apply this approach in their everyday practice less frequently ( $M: 4.07, SD: .08$ ). These data show that children learning needs have an impact on teachers theoretically but they do not always base their teaching practice on them.

### *The effectiveness of the pre-service teachers' preparation for teaching*

In the following part, the main focus was on how satisfied the sample groups were with pre-service teachers' preparation for teaching. The analyzed aspects were pre-service teachers' knowledge, the role of the university and the practice school and the synch between them.

The satisfaction with pre-service teachers' pedagogical content knowledge, content (subject) knowledge as well as pedagogical and psychological knowledge was measured with five-point attitude scales (*Table 1*). The most satisfied group were to be the pre-service teachers themselves. The most sceptic group were the university educators of subject methodology. Supervisor teachers and pre-service teachers were of a similar opinion as far as subject knowledge and pedagogy-psychology knowledge were concerned. University educators of subject methodology thought the opposite. They believed that pre-service teachers' subject knowledge was the most developed

form of all, but that their pedagogical content knowledge and pedagogical and psychological knowledge needed to be developed.

Table 1.

*The Satisfaction with the Pre-service Teachers' Knowledge According to the Subsample*

| The sample of examination  | Student teacher supervisor<br>(N=34) |           | Pre-service teachers<br>(N=22) |           | University educators of<br>subject methodology (N=20) |           |
|--|--------------------------------------|-----------|--------------------------------|-----------|---|-----------|
|  | Mean                                 | Std. Dev. | Mean                           | Std. Dev. | Mean  | Std. Dev. |
| The preparation of pre-service teachers' pedagogical content knowledge     | 3.36                                 | 1.026     | 3.95                           | .848      | 3.56  | .727      |
| The preparation of pre-service teachers' content knowledge                 | 3.6                                  | .724      | 4.05                           | .911      | 3.00  | .894      |
| The preparation of pre-service teachers' pedagogy and psychology knowledge | 3.72                                 | .591      | 4.11                           | .963      | 3.19  | .911      |

The question related to the role of the university and the practice school in pre-service teachers' professional preparation was examined with a multiple-choice question where maximum five categories could be chosen out of 19. The categories were based on Shulman (1986). The data showed that both institutions had their own roles in preparation. According to pre-service teachers, the practice school was far stronger in improving students' "pedagogical content knowledge" and their competencies of "class management", "conducting lessons" and "assessment of children performance".

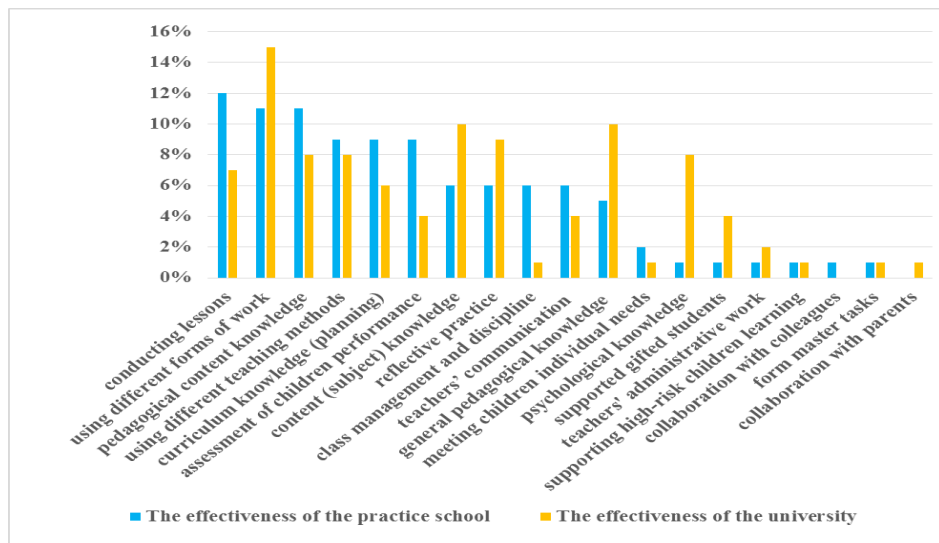


Figure 1. The Effectiveness of the Practice School and the University Theoretical Preparation in Different Fields According to the Pre-service teachers (N=22).



According to student teachers, university courses contributed far more to improving candidates' "reflective practice", general "psychological", "pedagogical" and "content (subject) knowledge" as well as improving their competencies of "using different forms of work", "supporting gifted students" (Figure 1).

However, there were significant differences between school teachers' and student-teachers' opinion concerning the role of the practice school and the university. Both groups agreed that (short) school practices had a large impact on student-teachers' pedagogical content knowledge. However, there were some areas where candidates attached greater importance to the role of practice school, such as assessment of children performance, class management as well as conducting lessons and using different forms of work when compared with the teachers' opinion. Both candidates and teachers agreed that university courses significantly contributed to the expansion of content (subject) knowledge and general pedagogical knowledge, teachers thought they are were far more dominant than the students did (Figure 2). As far as using different forms of work, reflective practice, conducting lessons and supporting gifted students were concerned, school teachers tended to underrate the impact of university courses more.

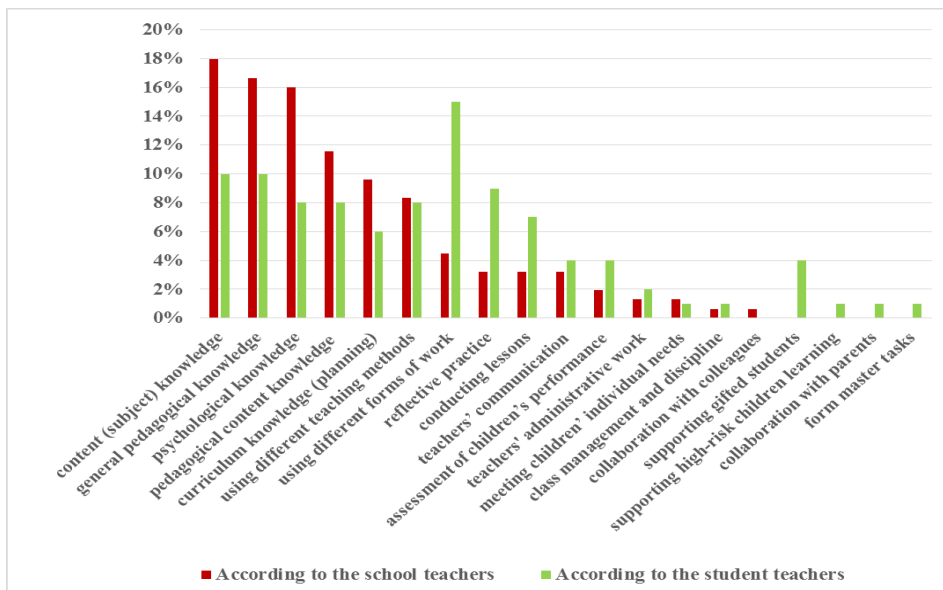


Figure 2. The Effectiveness of University Theoretical Preparation in Different Fields According to the Supervisor Teachers (N=34) and the Pre-service Teachers (N=22)

These data also show that forms of cooperation with colleagues and parents were not developed at all by either the university courses or the school practices. Improving candidates' competencies in a form master teacher's role should be highly considered.

Research participants were also asked to value the synch between the theoretical preparation of the university and the school practice on Likert scales. The most satisfied ones were the supervisor teachers ( $M: 3.5, SD: .61$ ), and the university educators ( $M: 3.3, SD: .78$ ) the least satisfied ones were the candidates ( $M: 3.0, SD: .55$ ). They could add some justification to their answers by an open question. The most mentioned explanations were the following. According to the teachers and educators, candidates were not able to transfer their theoretical knowledge into the questions of practice. Supervisor teachers mentioned most the lack of communication between the two institutions. According to their opinion, university courses do not prepare candidates for teaching practice, for example, they do not focus on that kind of theory and curriculum that need to be taught for children in the schools. University educators of subject methodology complained about the low level of candidates' knowledge of subject field. They also felt the lack of the synchronicity and think that some parts of the school practice are not harmonized, the practice school teachers were overwhelmed, and the assessment of candidates' performance was not effective.

With the help of open-ended questions, all sample groups gave suggestions to make school practice more sufficient. All groups mentioned in high rate the need of increasing the number of subject lesson observation and conducting lessons by student teachers. Candidates claimed to visit more types of lessons, classes and to experience different teaching styles. They also wished to get to know a class from more aspects. They would appreciate more effective preparation with case-based learning on class management and problem solving as well as on handling children's special needs. According to the supervisors, the university courses should be more practice-oriented. They stated that the curriculum of teacher training should be rethought and synchronized. University educators miss the dialogue and collaborative work with professionals involved in the training. They also thought that candidates should see more types of lessons and different supervisors at work.

### **The possibilities of experimentation in the practice school**

Considering Garvin's (1993) work, in this section the possibilities of experimentation by teachers and pre-service teachers were examined with a Likert-type scale. Two aspects were pointed out: experimentation in cooperation with the university and experimentation initiated by innovation projects supported by the European Union. As previously shown, teachers did not give much importance to research-based Teachers Education (see 4.1.3). They wanted to benefit from cooperation in the development of their pedagogical ( $M: 4.42, SD: .69$ ) and field ( $M: 4.17, SD: .78$ ) knowledge. Focusing on research areas, 57% of the teachers thought that fields of pedagogy and psychology must be explored, and 43% of them remarked that disciplinary researches should take priority. 38% had conducted research in the previous five years, and only nine out of 102 thought the research had been useful and contributed to students' learning

outcomes.

Attitudes towards innovation projects were analyzed according to the following aspects: professional challenges, motivation, extra work, professional benefits and financial benefits. It can be said that 80% of the teachers took initiatives as a professional challenge. According to 51% of the teachers, these initiatives meant motivation to work harder for them. 47% of them thought they contributed to their promotion. 62% felt that carrying out new tasks made them overloaded, while 73% of them thought that financial benefits provided by innovation projects could balance out the workload.

As far as candidates were concerned, they had some opportunities to implement their own ideas ( $M: 3.8$ ,  $SD: .1.2$ ) and do some tasks individually ( $M: 3.9$ ,  $SD: .19$ ) but standard deviations imply that these opportunities depend on many other factors.

### **Collaborative learning in the practice school**

The analyzed aspects of collaborative learning were: communication, levels and contents of cooperation among teachers and opportunities of cooperation provided for pre-service teachers. According to teachers' opinion the effectiveness of principals' communication towards the staff is around medium level ( $M: 3.3$ ,  $SD: .87$ ). 38% of them think of principal's information as relevant to their everyday work and 46% of the teachers think that principals have up-to-date information about their work. 53 % of them believe that they can share their opinion without any consequences in staff meetings. Regarding the flow of information among teachers, 67% of the teachers thought that they shared information relevant to everyday work with each other. Moreover, they stated that the lack of cooperation or communication with parents (73%) was a bigger obstacle in their work than that with their principals (73%), colleagues (71%) or university educators (42%).

As for levels of cooperation, 62% of the teachers identified the practice school as the community of children, their parents, teachers, pre-service teachers and university educators. The rest of the teachers did not include either pre-service teachers and university educators (12%) or university educators (2%) in the community of practice school.

75% of the teachers believed that they could cooperate, but the groups they identified themselves were diverse. The most extensive cooperation was achieved mostly among teachers who taught the same subject (26%), who felt sympathy toward each other (18%), and who worked at the same educational level (primary and secondary school) (18%).

The groups were formulated according to two core principles. The first was mutual sympathy, which played a crucial role in the case of primary school student teacher supervisors. The second was sharing a professional interest. This, in turn, could be divided into three sub-principles; namely mentoring student teachers, teaching the same subject, and teaching the same class.

Regarding contents and forms of cooperation, 60% of the teachers talked about children's behavior, and 40% of them discussed daily instructional problems. 29% did not cooperate on cross-curricular matters. 47% of the teachers were willing to cooperate at a higher level of professional development, which suggests that they were willing to participate in class observation activities. 49% of them organized workshops for colleagues.

Concerning teachers' cooperation with students, parents, pre-service teachers and university instructors, after the children's feedback ( $M: 4.84, SD: .36$ ), teachers counted on parents' ( $M: 4.48, SD: .69$ ). Feedback coming from pre-service teachers ( $M: 4.06, SD: 1.09$ ) and university educators ( $M: 3.93, SD: 1.13$ ) was valued lower on the Likert-scale. As it was stated earlier, in the teachers' view, cooperation with university meant contribution to their highly-ranked professional content knowledge than exploring new ways, learning new methods to help children's or pre-service teachers' development. This teacher-centered way of thinking was also supported by the following finding. According to most teachers (71%), professional content knowledge contributed most to children's better learning outcomes. Only 12% of them focused on children's learning needs, and 37% of them thought that adjusting teachers' instruction to these needs could lead to children's better learning outcomes.

One of the original aims of school practice is to let pre-service teachers gain perspective into the network of teachers, administrators, and parents. The data (on Likert scales) show that pre-service teachers did not have opportunities to see the collaborative work of teachers ( $M: 2.36, SD: 1.14$ ) and to improve their cooperation skills with these "future colleagues" ( $M: 2.86, SD: .66$ ). Only one out of 17 candidates could take part in staff meetings and branch teachers' meetings during their group practice. Neither did they have any opportunities to see the work of a child-care specialist ( $M: 2.00, SD: 1.2$ ) and a special education teacher ( $M: 2.09, SD: 1.41$ ) in the school. The development of interaction with parents received the lowest mean by pre-service teachers ( $M: 1.2, SD: .32$ ). Only 9% of candidates had the opportunity to visit parent-teacher meetings, and none of them took part in consulting hours for parents.

## **The ways of professional development in the practice school**

### **Teachers' professional development**

Having been asked to do self-assessment and determine their professional needs, the teachers were also asked about methods of their professional development with a multiple-choice question of 12 categories. They mostly used individual methods of professional development: reading journals or books (86%), exploring database made by other staff and professional communities (37%). Class observations and follow-up discussions (31%), attending conferences (28%) where sharing professional knowledge by reflection, self-reflection can be achieved are not preferred ways of learning. Not even sharing knowledge through modern technology (operating a website (0.5%)

or writing a blog (0.1%) took priority. Compared to international surveys, Hungarian teachers were more involved in individual research on a topic of interest as well as in course-workshops. However, unlike international trends, class observations were not among the most popular professional activities. The themes of these course-workshops overlap with teachers' needs: disciplinary, pedagogical knowledge and ITC skills. (OECD, 2014; European Commission, Eurydice, 2015).

### **Pre-service teachers' professional development**

According to the curriculum, during short practices, candidates have to do small tasks in groups, visit and conduct different types of school-organized activities to gain experience in various areas of school life. Their satisfaction level with the practices was measured by Likert-scales.

Concerning the satisfaction with teaching practice itself, it can be said that student teachers feel to be the most prepared in the field of planning ( $M: 4.7, SD: .72$ ) and subject teaching skill ( $M: 4.3, SD: 1.01$ ).

They also felt quite satisfied with their improvement in forms of work (pair, group), teaching methods and student assessment ( $M: 4.1, SD: .96$ ). 50% of the candidates saw lessons with cooperative work and 38% of them gave lessons in this way. Candidates also felt their development in the field of class management ( $M: 4.1, SD: .96$ ) and discipline ( $M: 3.8, SD: .72$ ), although they did not have an in-depth look into the main features of students' conflicts ( $M: 2.8, SD: 1.2$ ). The least developed field of the major groups was differentiation ( $M: 3.2, SD: .47$ ). Only 14% of candidates took part in lessons with differentiated exercises. Neither their competence of supporting high-risk students ( $M: 2.6, SD: 1.09$ ) nor that of supporting gifted students ( $M: 2.6, 1.25$ ) improved so much. However, they met the main professional, methodological options with which the students' individual needs can be identified ( $M: 3.77, SD: .76$ ). The data reflect the pattern of new teachers' professional development needs (Jensen et al., 2012).

As far as the form-master role is concerned, 59% of candidates had the opportunity to observe this kind of lesson and 23% of them could help to execute it. That is why less than half of the candidates felt their competence concerning form-master's tasks improved ( $M: 2.64, SD: .98$ ).

As far as extra-curricular school activities are concerned, the most visited occasions were sport events and regular workouts in which 41% of the candidates were able to take part, and 32% of them organized them. A similar number of them gained experience in visiting and organizing school events (national celebrations, Christmas, carnivals). Only some pre-service teachers could observe tutorials school activities organized for gifted or high-risk children in the afternoon ( $M: 2.0, SD: 81$ ).

### **Knowledge sharing in the practice school**

In order to get more insight into knowledge transfer, knowledge sharing processes were examined. The Likert-type scale exploring teachers' opinion about what contributes to children's learning outcomes to the largest extent revealed that it is teachers' professional content knowledge (71%). Cooperation in the staff (20%), cooperation between the practice school and the university (26%) or sharing knowledge with other schools (3.5%) gained much lower values.

With the help of document analysis, the course-workshops conducted by teachers and their topics and their target groups were examined. More than half of the teachers (65%) had taken part actively in conducting teacher course-workshops in the last five years. Most of the course-workshops were completed on ICT skills, methodology, and those supporting teachers' promotion. These figures coincide with the figures referring to practice school teachers' needs for professional development. As far as the target groups of training are concerned, 19 trainings were general, four were addressed to high-school teachers, four to student-teacher supervisors, three to teachers of specific subjects and two to elementary-school teachers.

Findings of the content analysis of the responses to the complete the statement item (*The practice school will become a Professional Development School if...*), were as follows: high-quality content knowledge, N=41; dedication to professional development, N= 3; knowledge transfer, N=13; cooperation with the university, N=9; supporting pre-service teachers, N=8; autonomy, N=1; Total respondees, N=102). This is evidence that even if high-quality professional knowledge and dedication to continuous professional development are the core of their imagined Professional Development School, knowledge transfer and cooperation in the staff, and between the practice school and the university do not play an important role in its construction.

### **Discussion and Conclusions**

The case of the current study is a typical one in of its context (Stake, 1998). Hence, the case study of a practice school with a complementary partnership of the university shows the strength and the weakness of the university-based ITE system. According to Nisbet and Watt (1984), a case study can provide insights into similar situations or phenomena. However, caution is required when generalizing the results of these studies.

The data were analyzed according to five different aspects based on Garvin's Learning Organization model which are the basic features of the Professional Development School model (The Holmes Group, 1986, 1990; Clark, 1999; Levine, 1997): *Systematic problem solving*, *Experimentation*, *Learning from others*, *Learning from past experience*, and *Transferring knowledge* (Garvin, 1993). These five areas were reflected in the sign of system-thinking in the training process, the possibilities of experimentation, collaborative learning, the ways of professional development, and



knowledge sharing in the practice school.

As far as the *system approach* is concerned, the following can be said. Teachers thought that their principals' system thinking (including problem-solving accepting and critical remarks) was not quite satisfactory. Following the international trends, teachers' professional needs overlap with the needs supported by their principals. However, not all teachers are aware of the existence of practice school's professional development plan. The shortcomings of the system approach is proved by the fact that the role of the university and the practice school in teacher education and the level of pre-service teachers' knowledge is judged differently by supervisor teachers, university educators and candidates themselves. The lack of synchronicity between university and practice school seems to be the main cause.

As for *experimentation and innovations*, teachers' little support of the idea of research-based teacher education could be rooted in the lack of knowledge of doing research, as well as in their belief that former studies conducted with the university have made little impact on students' learning outcomes. Teachers rely on innovation projects in their everyday practice. Benefits such as promotion or financial support pay off doing extra work. Candidates have some opportunities to implement their own ideas and do some tasks individually, but these opportunities depend on many other factors (e.g., task, supervisor teacher).

*Collaborative learning* as one of the basic principles of a learning community does not take priority. Not all of the teachers identified the practice school and the university as a community of children and their parents, teachers, pre-service teachers and university educators. The key element of cooperation (i.e., the flow of information in the community) was seen to be adequate only between principals and teachers, and among teachers. The content of their cooperation is mainly students' behavior or instructional matters. The typical form of cooperation is informal discussions. Formal activities such as planning or carrying out projects or class observations are not relevant for teachers.

Teachers' cooperation with other agents such as parents, or pre-service teachers and university teachers were not preferred, which points out that teachers do not take advantage of partnerships with parents, pre-service teachers' and university educators. It leads to the fact that candidates cannot see good practices of collaboration of different agents in the practice school.

The preferred methods of professional development by teachers do not enforce collaboration at all, and this finding parallels those of international trends. Although the need for teaching ICT skills is extensive, teachers do not take advantage of methods supporting the use of modern technology.

Pre-service teachers' not having opportunities to see different roles and tasks of teachers, conductors, a child-care specialist, a special education teacher and forms of interaction with parents were identified as the highest lack of the school practice. This



also reveals the defects of collaboration in practice school.

As far as *knowledge transfer* is concerned, teachers did not think that knowledge transfer plays a very important role in their professional development. In their opinion, knowledge transfer means conducting training sessions and workshops. The preferred method for professional development was mainly individual and not based on cooperation to enhance reflection and self-reflection. They felt their most important competency was content (subject) knowledge, and this outstanding knowledge set a good example for teachers of other schools.

The main focus of their professional development was not to meet children's or student teachers' learning needs but the criteria of their ideal of a professional teacher. Even if high-quality content knowledge and dedication to continuous professional development were the core of their imagined Professional Development School, knowledge transfer and cooperation did not play an important role in constructing it. We suppose that the lack of focus on children's and student teachers' learning needs, and the lack of the need of professional cooperation in teachers' beliefs are very important indicators in student teachers' beliefs, and they show at which points the practice school could be developed towards a Professional Development School.

In our case study, we analyzed a typical Hungarian practice school by five factors of a Learning Organization. Our results gave evidence of the main shortage areas of university-based ITE. Based on the findings, it can be claimed that the biggest problem of this kind of system is the lack of synchronicity between university courses and school practice, which is the result of not effective collaboration on different levels. It implies the need for a new approach. Therefore, only some structural changes in the concept of ITE are not enough. Moving from a complementary university-school partnership to a collaborative one (by following PDS model) would lead to thinking in a system concerning the approach, the structure and the contents of ITE. The collaborative work of involved members of ITE not only helps to improve the problematic fields of supporting children's learning process but also stimulates experiment, innovations and researches. It would contribute to a wider form of knowledge sharing as well as more complex and effective professional development of pre-service teachers, teachers and educators.

The data also showed that pre-service teachers' main problems and feelings of deficiency with teacher education seem to be related to the school teachers' main general challenges, such as students' behavioral problems, meeting students' needs.

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