

SUPPORT FOR TEACHERS' COMPETENCES IN THE TEACHER TRAINING SCHOOL MODEL – A CASE STUDY

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Purpose: The aim of the article is to present model Teacher Training Schools in Poland on the example of the implemented project "Teacher Training School in the commune of Rawicz" and to present recommendations in the field of supporting teachers' competences participating in the project.

Design/methodology/approach: The article presents the Teacher Training School model as an innovative system of supporting teachers' competences. Selected aspects of the Teacher Training School functioning established as part of the project co-financed from EU funds are presented. The conclusions from the diagnostic tests (carried out for 7 supported schools, teachers and principals) were indicated in the light of their expectations for forms of support aimed at the development of professional competences. Two diagnostic methods and tools were used in the research process: CAWI survey – online survey research addressed to 66 teachers, based on respondents completing an electronic questionnaire using the Microsoft Forms tool, and CATI survey – computer-assisted telephone interview, conducted by the interviewer with 14 principals and deputy principals of schools, according to a predefined script.

Findings: The results of the diagnosis of the schools' needs, of teaching staff in particular, made it possible to specify teachers' expectations within four subject areas (mathematics, ICT, natural sciences and language) towards the willingness to learn methods and techniques, as well as tools and technical means supporting the learning processes. At the same time, conditions for maintaining the durability of the introduced changes and strengthening the obtained effects were identified from the point of view of school principals and deputy principals.

Research limitations/implications: The assessment of the effectiveness of the impact of the Teacher Training School in the commune of Rawicz presented in the article will be possible only after the completion of the project as part of the ongoing project evaluation.

Practical implications: The results of diagnostic tests, including the expectations of teachers and managers, allow for detailed planning of workshops and cooperation networks in the project "Teacher Training School in the commune of Rawicz".

Social implications: The implementation of model Teacher Training Schools in Poland will have a social dimension that will directly affect the development of teachers and indirectly increase the key competences of students.

Originality/value: The presented model of the Teacher Training School as well as the conclusions of the conducted research constitute a recommendation for the needs of practical training of teachers from primary schools in Poland.

Keywords: teachers, competences, diagnosis of needs, workshops/training.

1. Introduction

The priority of educational policy in Poland is to ensure an effective system of education and continuous professional development of teachers which will respond to the real needs of the school and will allow teachers to improve their professional competences and develop their workshop. Schools, as well as teacher training institutions, should develop towards learning organizations and by undergoing permanent evaluation, improve their development (Hajdukiewicz, Wysocka, 2016, p. 7).

At the same time, it is important to promote the self-education system among teachers (Fila, Matuszczak, Rybińska, 2015, p. 43), and school principals should play a key role in this process (Fischer, Taylor, 2012, p. 235; Kordziński, 2010, p. 10).

The improvement of employees' workshop will serve to strengthen their competences more if it is of practical nature, based on observation and exchange of experiences among teachers at the workplace (Wysocka, Hajdukiewicz, 2015, p. 2). The research results clearly show that high efficiency is built by a teacher not only through participation in training, but also through cooperation with other teachers and the opportunity to participate in joint projects at school (Main results of the research TALIS, 2013). In Polish schools, however, such activities are rarely undertaken on the school premises (Hernik, Malinowska, Piwowarski, 2014, p. 5).

To meet these needs, the Education Development Centre has developed the concept of a modern system of teacher education in Poland within the Teacher Training School model (Teacher Training School Model, 2019), which can be co-financed under priority axis 2.10 High quality of the education system, Operational Programme Knowledge, Education, Development 2013-2020 from the European Social Fund (Operational Programme Knowledge, Education, Development 2014-2020, 2021). School managing authorities could apply within competitions announced by the Ministry of National Education in Warsaw and receive funds for the implementation of projects aimed at creating Teacher Training Schools based on the model developed by the Education Development Centre (www.ore.edu.pl).

This initiative depended on the effectiveness and involvement of leading authorities, because local governments, together with teacher training institutions, pedagogical libraries, psychological and pedagogical counseling centres, and universities, initiate cooperation and plan joint projects for the development of local education (Goćłowska, Soćko, 2015, p. 43).

2. Assumptions of the Teacher Training School

The Teacher Training School according to the model is: “a set of planned activities of schools (training schools and cooperating schools) and institutions supporting the learning process of teachers and students (...)”, “a school where future teachers will experience practical verification of the theory learned during their studies, and working teachers can improve their work techniques in cooperation with other teachers (...)”, “in the training school a student under the guidance of a teacher will face educational practice in areas of education and upbringing, and teachers will develop their workshop and share their ideas with other teachers” (Model szkoły ćwiczeń/Teacher Training School Model, 2019, p. 4).

The Teacher Training School should cooperate with specialists and effectively use the resources of the local educational community institution (Zasady współpracy szkoły ćwiczeń/Principles of training school cooperation, 2019, p. 2):

- leading authorities (local governments),
- support centres (psychological and pedagogical counseling centre, pedagogical library, teacher training centre),
- universities (teaching schools).

The model Teacher Training School is a place for disseminating innovative activities supporting the development of students' key competences, with particular emphasis on teaching foreign languages, mathematics, natural sciences, information and communication technologies and sharing knowledge and skills by teachers. The principals and teachers of Training Schools are obliged to promote and implement the use of innovative didactics in other schools, as well as organizational and educational solutions in the scope of activities supporting the development of students' key competences.

Currently (30th June, 2022), 42 Training Schools across Poland were founded and financed from the European Social Fund as part of two competitions announced by the Ministry of National Education (MEN, POWR.02.10.00-IP.02-00-005/18; MEN, POWR.02.10.00-IP.02-00-003/19).

3. Functioning of the Teacher Training School established as part of the project

As part of the project ”Teacher Training School in the commune of Rawicz”, Janusz Korczak Primary School in Sierakowo acts as a Training School and carries out tasks in the field of professional development and teacher education, including the process of supporting 7 cooperating schools. While implementing the support process, the Teacher Training School

cooperates with local institutions supporting the education process, as shown in the figure below (Figure 1).

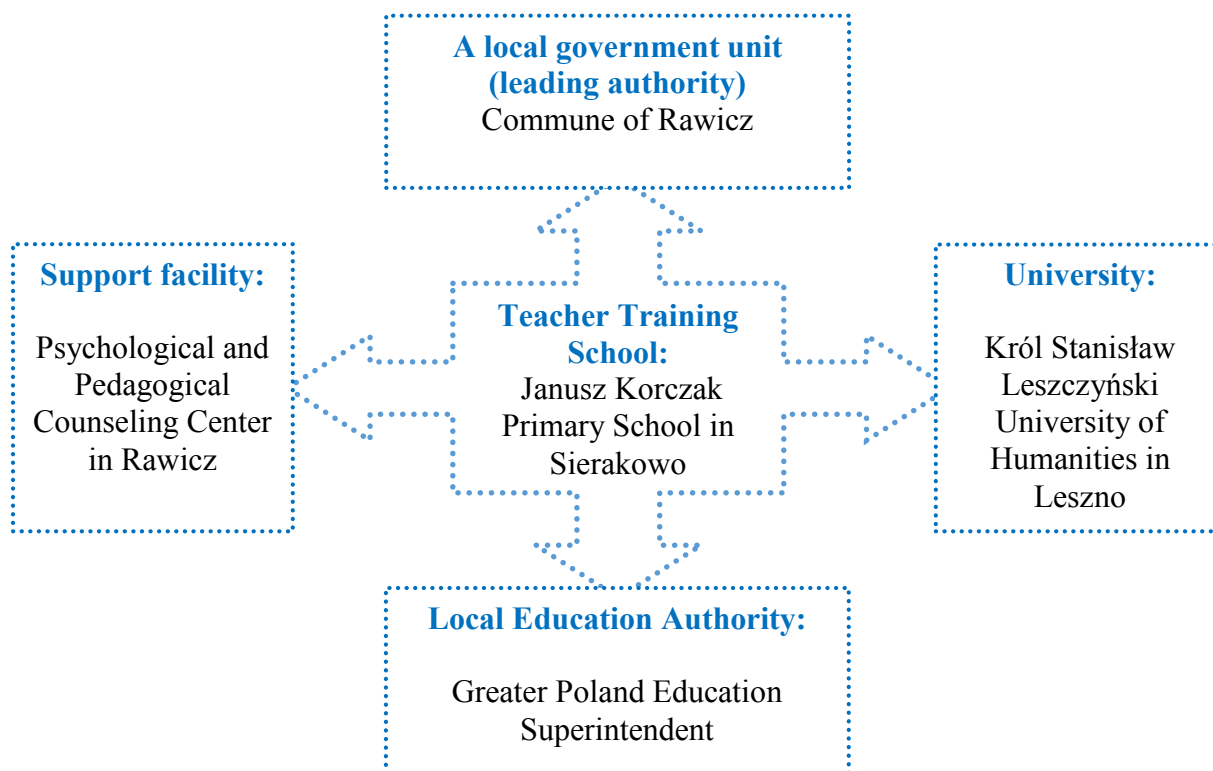


Figure 1. List of institutions cooperating with the newly established Teacher Training School. Source: own study based on the application for co-financing of the project "Teacher Training School in the commune of Rawicz".

As part of the project "Teacher Training School in the commune of Rawicz", a number of activities have been planned, leading to the achievement of the main goal: "Improving the functioning of the school support system in the development of key competences and universal skills in the labour market by preparing, supporting and granting the status of a Training School to Janusz Korczak Primary School in Sierakowo thanks to the implementation of comprehensive and complementary tasks: equipping subject laboratories in the Training School (task 1), strengthening the competences of 2 school principals and 24 teachers in the field of methods and forms of didactic work (task 2) and professional training of 52 headmasters and teachers from 7 cooperating schools in the field of developing key competences of students (task 3) by 31st July, 2022". The key elements of the project are presented in the following table (Table 1).

Table 1.*Key elements of the newly established Teacher Training School within the project*

No.	Specification	Characteristics
1.	Operational Programme	Knowledge Education Development 2013-2020
2.	Priority Axis	Effective public policies for the labour market, economy and education
3.	Action	Actions 2.10 "High-quality education system"
4.	Competition	POWR.02.10.00-IP.02-00-003/19
5.	Beneficiary	the commune of Rawicz
6.	Partner	Euro Innowacje sp. z o.o.
7.	Project budget	1 324 295,66 zł
8.	Implementation period	01/01/2021-31/07/2022
9.	Teacher Training School	Janusz Korczak Primary School in Sierakowo
10.	Supported Schools	<ol style="list-style-type: none"> 1. Adam Mickiewicz Primary School No. 1 in Rawicz 2. Kornel Makuszyński Primary School No. 3 in Rawicz 3. Władysław Broniewski Primary School No. 4 in Rawicz 4. Karol Kurpiński Primary School No. 5 in Rawicz in The School and Kindergarten Complex No. 2 in Rawicz 5. Primary School in Masłowo in The School and Kindergarten Complex in Masłowo 6. Powstanców Wielkopolskich Primary School in Zielona Wieś in The School and Kindergarten Complex in Zielona Wieś 7. Primary School in Słupia Kapitulna in The School and Kindergarten Complex in Słupia Kapitulna
11.	Tasks scheduled for the project	<p>Task 1: Retrofitting subject laboratories with teaching equipment and teaching aids for the needs and functioning of the Training School (PLN 308 633.72).</p> <p>As part of the task, the classrooms of the Training School were equipped with modern equipment and interactive teaching aids for the implementation of forms of support for the newly established Training School in four subject areas (mathematics, ICT, natural sciences, languages).</p> <p>As a result, 8 subject laboratories were created in which demonstration lessons, methodological workshops and teacher cooperation within the network are carried out:</p> <ul style="list-style-type: none"> - mathematics laboratory, - ICT laboratory (IT), - natural sciences laboratory, - biology laboratory, - chemistry laboratory, - physics laboratory, - geography laboratory, - linguistic laboratory (English and German). <p>Task 2: Strengthening the competences of 28 teaching staff and supporting the forms and methods of work of the Training School adopted for implementation (PLN 157 816.00). As part of this task, coaching sessions were covered for 2 headmasters of the Training School, and professional competences of 24 teachers of the Training School were strengthened in order to prepare them for the role of the so-called Training School trainers. Coaching sessions concerned increasing the competences of principals in the following areas:</p>

		<p>personnel management, delegating tasks, change management, building an effective team as well as motivating employees effectively.</p> <p>The scope of workshop trainings for teachers included the issues necessary to conduct model demonstration lessons and network of cooperation with teachers of supported schools: building innovative curricula and lesson plans, creating own interactive teaching materials and using available materials on the web, using scientific experiment methods, including experiences and life observations in education, the use of effective learning strategies according to the sensory preferences of students, the latest trends in motivating students to learn, training in shaping students' interpersonal and social skills, using modern information and communication technologies, including the use of modern tools (interactive board, 3D printer, smartphone, tablet, computer clouds) and the application of network security rules – cyberspace and cybersecurity.</p> <p>Task 3: Conducting activities in accordance with the diagnosed needs of supported schools in selected forms and methods of work of the Training School (PLN 637 130.00).</p> <p>The last key task was to organize various forms of support for teachers of supported schools in four subject areas (mathematics, ICT, natural sciences, language). The support included:</p> <ul style="list-style-type: none"> - diagnosis of needs of principals and teachers of 7 supported schools, - coaching training for 14 principals, - organization of a methodology conference for 52 teachers, - development of 8 sets of didactic materials for teachers, students and internship supervisors, - production of 16 films complementary to teaching materials, - establishment of 4 networks of cooperation and self-education, - conducting methodological workshops for teachers on the development of key competences, - development of 96 scenarios for demonstration lessons, - conducting 96 hours of demonstration lessons.
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Source: own study based on the application for co-financing of the project "Teacher Training School in the commune of Rawicz".

4. Recommendations regarding forms of support for teachers in the light of the diagnosis

Planned forms of support in the project should be preceded by a diagnosis of needs of principals and teachers of supported schools. As a consequence, for all 7 supported schools included in the project, research was carried out (CATI and CAWI methods) in order to provide "tailor-made" support as part of task 3.

The diagnosis was carried out in the period from June 1 to August 31, 2021, and its purpose was to identify the need for additional training of teachers from supported schools, in particular to specify and detail the planned forms of support in 2021/2022 dedicated to teachers from four subject areas: mathematics, ICT/IT, natural sciences (nature, biology, chemistry, geography, physics) and language (English, German). As a result, the identification was made regarding:

- methods and techniques supporting learning processes for stationary methodological workshops in the field of developing students' key competences, using methodological and didactic materials supporting professional development,
- tools and technical means to support the learning processes discussed on collaborative and self-education networks for the teaching staff of the Training School and supported schools,
- identifying the conditions for maintaining the durability of the introduced changes and strengthening the effects achieved within the project from the point of view of school principals and deputy principals.

According to the concept of diagnosis, the study covered: 100% of the project participants, i.e. 14 people from the school management (principal and deputy principal) and 66 teachers divided into four subject areas: mathematics (14 people) ICT (14 people), natural sciences (21 people) and languages (17 people).

Two diagnostic methods and tools were used in the research process: CAWI survey – online survey research addressed to 66 teachers, based on respondents completing an electronic questionnaire using the Microsoft Forms tool, and CATI survey – computer-assisted telephone interview, conducted by the interviewer with 14 principals and deputy principals of schools, according to a predefined script.

In the light of the conducted research, it can be concluded that teachers of each of the four subject areas are interested in different methods and techniques supporting learning processes, as shown in the charts (Figures 2-5).

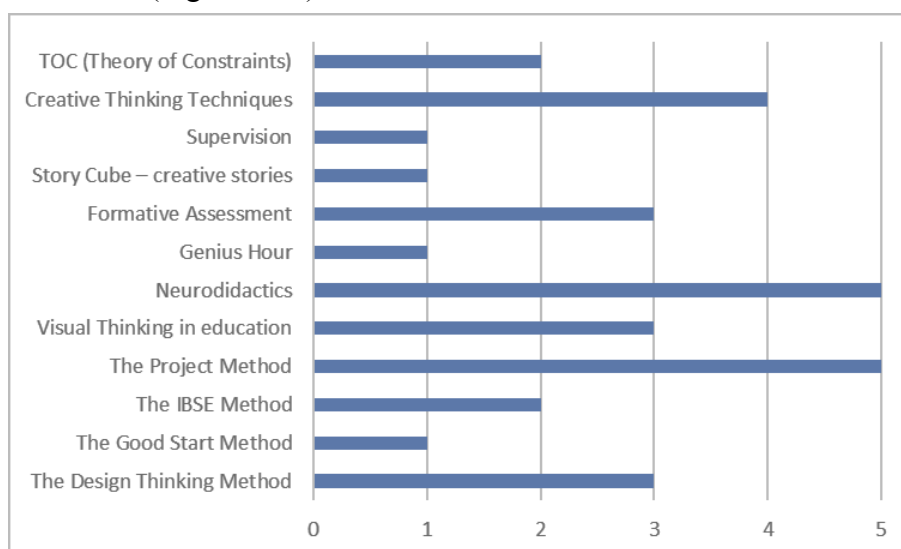


Figure 2. Methods and techniques indicated by teachers in the field of mathematics. Source: own study based on the conducted research.

Maths teachers (mathematics area) were primarily interested in studying methods and techniques supporting the following learning processes (3 or more indications): The Project Method, Creative Thinking Techniques, Neurodidactics, Visual Thinking in education, The Design Thinking Method and Formative Assessment.

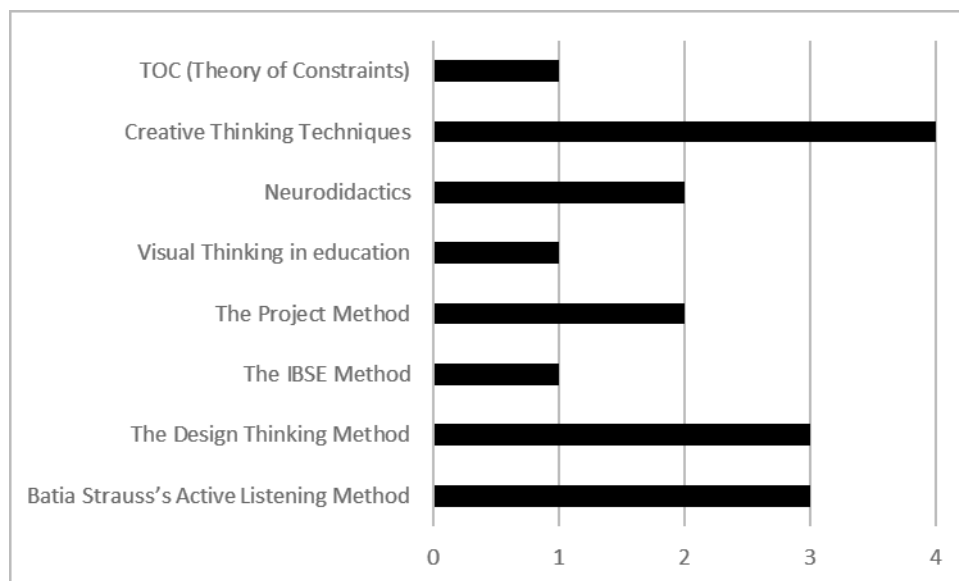


Figure 3. Methods and techniques indicated by teachers in the field of ICT. Source: own study based on the conducted research.

Teachers conducting Computer Science classes (ICT area) had expectations regarding the improvement of skills in the following methods and techniques (3 or more indications): Batia Strauss's Active Listening Method, Creative Thinking Techniques and The Design Thinking Method.

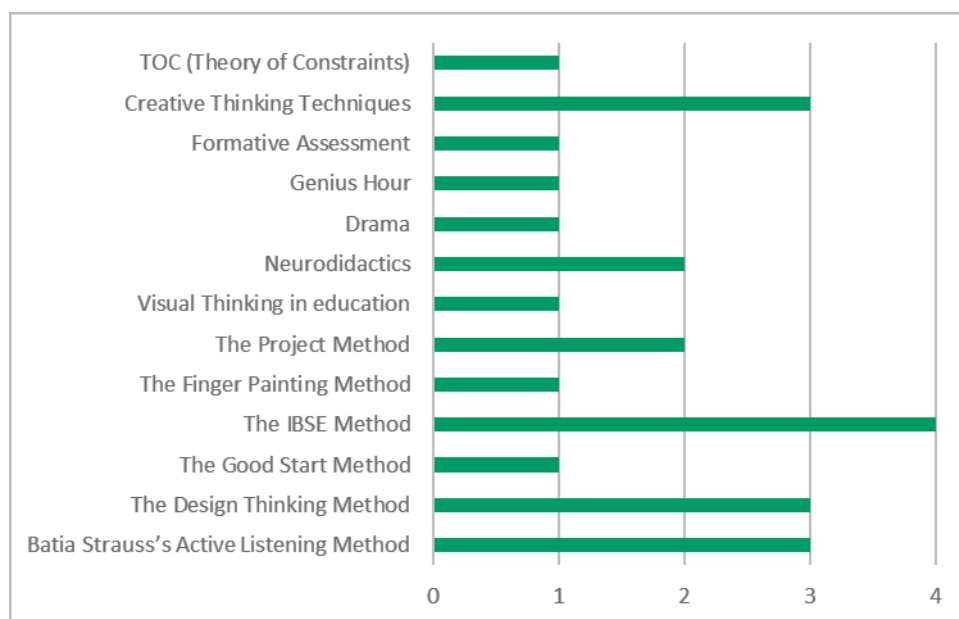


Figure 4. Methods and techniques indicated by teachers in the field of natural sciences. Source: own study based on the conducted research.

The largest group of teachers conducting classes in natural sciences, biology, chemistry, geography, physics (the field of natural sciences) showed the need to improve their competences in the following methods and techniques (3 or more indications): The IBSE Method, Batia Strauss's Active Listening Method, The Design Thinking Method and Creative Thinking Techniques.

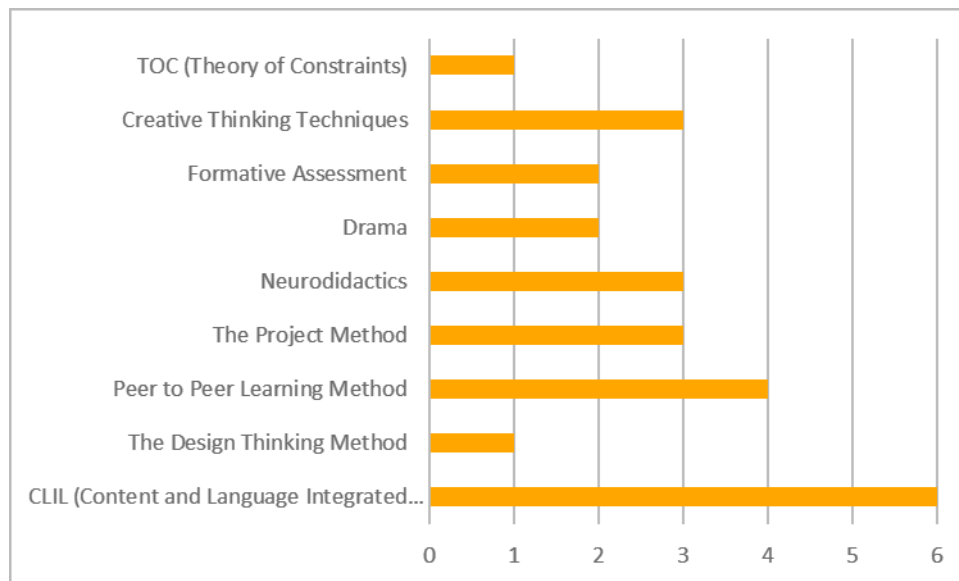


Figure 5. Methods and techniques indicated by teachers from the linguistic area. Source: own study based on the conducted research.

On the other hand, the staff teaching foreign languages (linguistic area) expressed the need to acquire knowledge of the following methods and techniques (3 or more indications): CLIL Method, Peer to Peer Learning method, The Project Method, Neurodidactics and Creative Thinking Techniques.

The results of the research on the need to improve teachers' knowledge and skills in the field of modern tools and technical means for the studied groups are presented in the charts below (Figures 6-9).

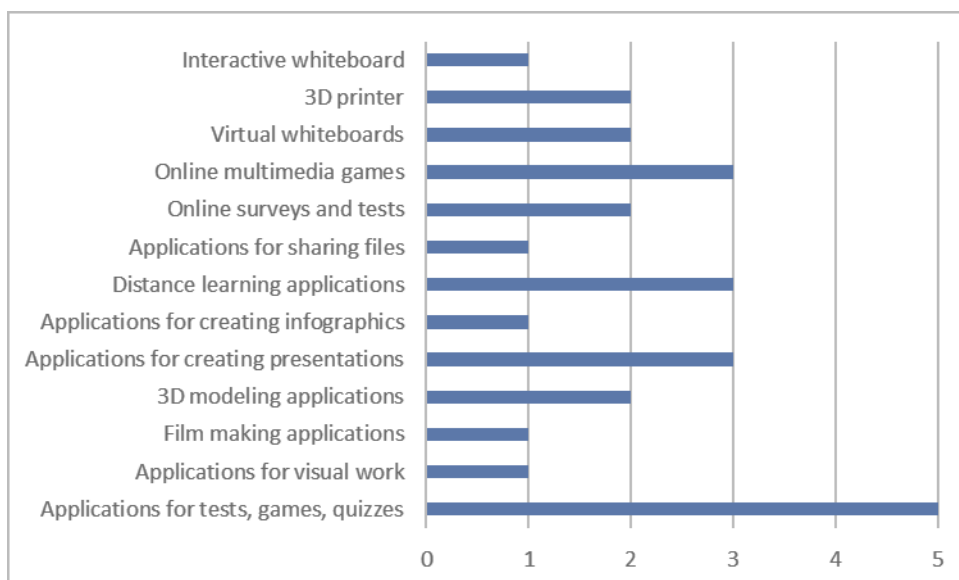


Figure 6. Tools and technical means indicated by teachers in the field of mathematics. Source: own study based on the conducted research.

Teachers of mathematics (mathematics area) indicated the willingness to learn the following tools and technical means supporting the learning processes (3 or more indications): Applications for tests, games, quizzes, Applications for multimedia presentations, Online multimedia games, Applications for visual work and Distance learning applications.

On the other hand, teachers conducting Computer Science classes (ICT area) had expectations in terms of acquiring the skills to use the following technical tools and means (3 or more indications): Applications for creating tests, games, quizzes, 3D modeling applications and Online multimedia games.

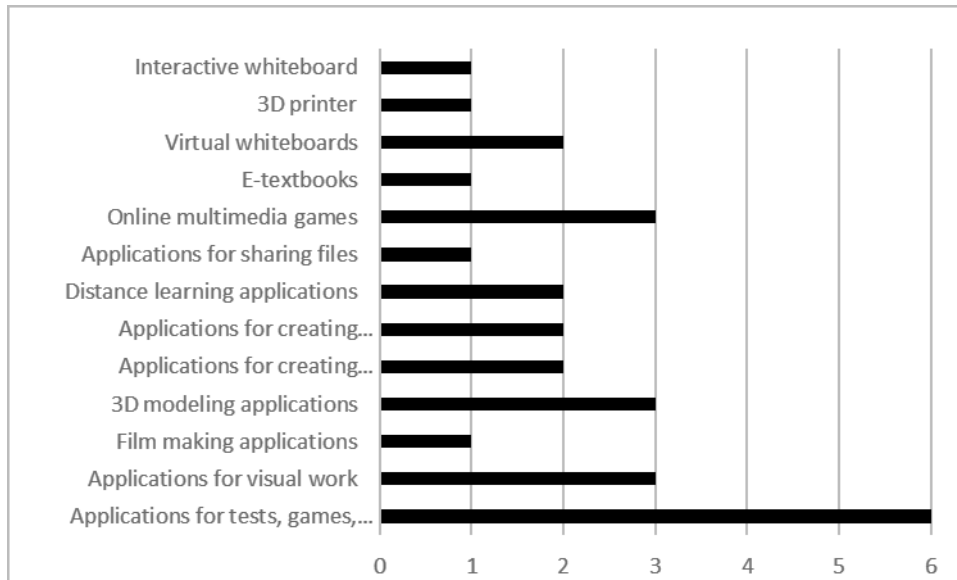


Figure 7. Tools and technical means indicated by teachers in the field of ICT. Source: own study based on the conducted research.

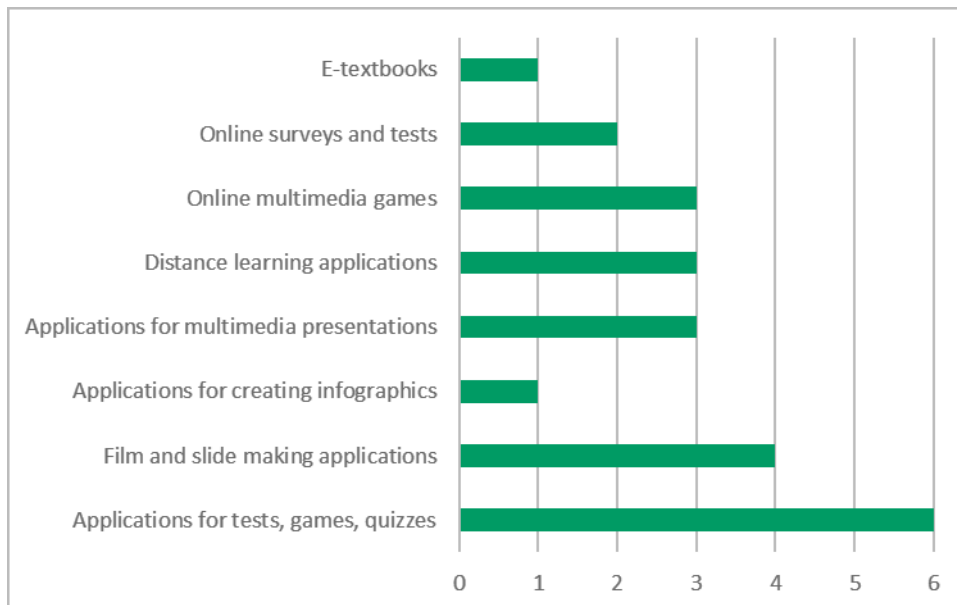


Figure 8. Tools and technical means indicated by teachers from the natural sciences area. Source: own study based on the conducted research.

The most numerous group of teachers conducting classes in natural sciences, biology, chemistry, geography, physics (the field of natural sciences) showed the need to improve their competences from the following tools and technical means (3 or more indications): Application for creating tests, games, quizzes, Film and slide making applications, Applications for multimedia presentations, Distance learning applications and Online multimedia games.

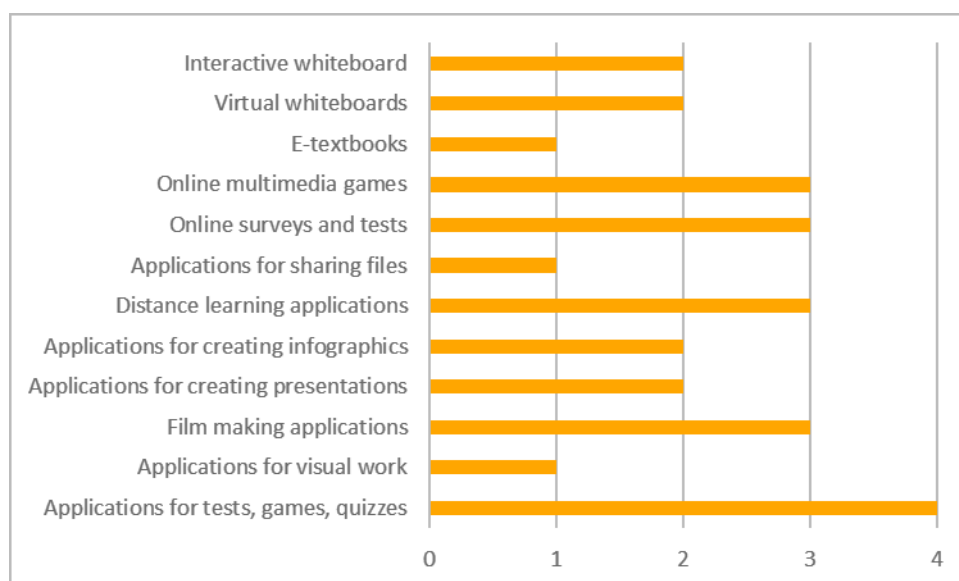


Figure 9. Tools and technical means indicated by teachers from the linguistic area. Source: own study based on the conducted research.

On the other hand, teachers of foreign languages (linguistic area) expressed their willingness to be trained in the following tools and technical means: (3 or more indications): Applications for creating tests, games, quizzes, Film and slide making applications, Distance learning applications, Online surveys and tests and Online multimedia games.

The principals and deputy principals of supported schools covered by the research indicated the following conditions for maintaining the durability of the introduced changes and strengthening the effects of improving competences among teachers employed in institutions they manage:

- it is necessary to integrate teachers' community allowing the involvement of all teachers in the process of improving competences,
- recruiting participants for methodological workshops and cooperation networks should be conducted within unified groups of teachers, which will enable the exchange of experiences and improve the process of sharing knowledge among teachers from a given subject area,
- the subject of workshops and methodological networks must result from the diagnosed needs of teachers, which will enable to offer "tailored" support,
- the support should be based on the possibility of practical application of the acquired methods and the use of tools for conducting lessons that can be directly applied in the daily professional work of a teacher.

5. Summary

The establishment of Teacher Training Schools in Poland should contribute to the change of the existing system of teacher education and training, as part of three functions:

- educational, understood as presenting students (as part of education) and teachers (as part of professional development) with effective forms and methods of working with pupils/students,
- promotional, by indicating model solutions in the field of educational and organizational tasks in the local educational environment,
- integrative, implemented through the fusion of resources (knowledge, competences and activities) of institutions established to support the work of the school and teacher education.

The presented model project "Teacher Training School in the commune of Rawicz" as an innovative system of supporting teachers' competences, may be applied in other primary schools in Poland whereas the results of the diagnosis of needs of supported schools, including the expectations of teaching staff from four subject areas, constitute a recommendation for the process of professional teacher training.

The priority of educational policy in Poland should be to ensure an effective system of education and continuous professional teacher development, which will respond to the actual needs of the school, and will allow teachers to improve their professional competences and develop their workshop.

It should be emphasized that success in implementing changes will only be possible when the prestige of the teaching profession in Poland increases. The fact that many teachers leave their jobs is disturbing. At the same time it is observed that not many young people are interested in taking up teaching. The principles of recruitment to the teaching profession as well as teachers' openness to the process of improving and raising competences are also significant.

The implementation of model Teacher Training Schools in Poland will have a social dimension directly influencing the development of teachers' and indirectly students' key competences. Planned evaluations of the newly established Teacher Training Schools in Poland will allow to verify long-term effects, including the effectiveness, relevance, efficiency and durability of the changes introduced in the process of professional development and teacher education.

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