Field-based practicum – a new teaching practice approach in primary and secondary schools

Stanisław Czyż Halina Guła-Kubiszewska Wojciech Starościak



WYŻSZA SZKOŁA HUMANITAS W SOSNOWCU

Sosnowiec 2014

Review:

Doc. PhDr. Soňa Jandová, Ph.D. Prof. PhDr. Hana Válková, CSc.

Copyright © 2014: University School of Physical Education in Wrocław, Poland All rights reserved

Free copy (free publication)

Publication co-financed by the European Union funds under the European Social Fund





EUROPEAN UNION EUROPEAN SOCIAL FUND







ISBN: 978-83-64788-10-9 Print run: 300

The Publisher of the Humanitas University ul. Kilińskiego 43 41-200 Sosnowiec, Poland Series: *Monographs*



Translation, edition, print coordination: AD VERBUM Iwona Kresak Proofreading: Barbara Toczek-Luteijn Page layout design: Krzysztof Zdunek Cover design: Blue-AB Beata Poźniak Cover photograph: Fotolia

Printing and binding: Wrocławska Drukarnia Naukowa PAN im. S. Kulczyńskiego, Wrocław, Poland

Table of Contents

Introduction	5
1. Physical education in Poland	9
1.1 The history of physical education in Poland	9
1.2 Physical education as a school subject1	1
1.3 Physical education as a school subject – the present situation1	2
1.4 Assessment of students' achievements1	3
1.5 The education system in Poland1	3
2. Polish standards of training teachers with teacher practicums	5
 2.1 The Ordinance of the Minister of National Education and Sport of September 7, 2004 on the standards of training teachers	5
the detailed qualifications required from teachers and on defining schools and cases where teachers without higher education or graduation from a teacher training institution can be employed1	6
2.3 The Ordinance of the Minister of Science and Higher Education of January 17, 2012 on the standards of training teachers1	7
3. Teacher practicums as part of teacher training on the example of the University School of Physical Education in Wrocław2	1
3.1 Practicum management at the University School of Physical Education in Wrocław until 20112	1
3.2 Practicum management at the University School of Physical Education in Wrocław after 20112	3
3.3 Programs and regulations developed for practicums in primary schools as part of the <i>New Quality of Teacher Practicums</i> project2	7
3.3.1 Rules of recruitment and work of a school teacher acting as a practicum tutor2	8
3.3.2 Rules of recruitment and work of an academic teacher acting as a practicum supervisor3	2
3.3.3 Rules of organization and execution of teacher practicums held as part of the <i>New Quality of Teacher Practicums</i> project (in force for students)	6

3.4 Rules of implementing teacher practicums in physical education45
3.4.1 The teacher practicum program for primary schools45
3.4.2 The teacher practicum program for lower secondary schools 52
3.5 Rules of implementing teacher practicums in compensation
and corrective gymnastics
3.5.1 The teacher practicum program for primary schools
3.5.2 The teacher practicum program for lower secondary schools58
4. The issue of teacher practicums in academic research61
4.1 The issue of teacher practicums in academic research in Poland63
5. Evaluation of practicum effectiveness in teacher education
5.1 Evaluation surveys69
5.2 Knowledge tests and grades81
6. Summary
References
List of Figures
2.6. 6
List of Tables
-
List of Tables109
List of Tables
 List of Tables
 List of Tables

Introduction

The matter of practicums in teacher training is an important subject. As early as at the beginning of the 20th century, John Dewey, in his book *Democracy and Education* (1933/1998) stressed the importance of practicums in teacher training. A wide array of literature of the subject, treating practicums both from theoretical and practical side, e.g. in the context of analysing their effectiveness, is one of the arguments for the need of serious consideration of the practicums, their goals, tasks, where they should take place, etc. The planning of practicums is an ongoing process, i.e. the program and its assumptions undergo constant changes. The external factors, such as legal acts defining the framework of practicum execution, or internal ones, e.g., evolving value system of younger and older generations are the reasons why it is difficult to plan and implement a practicum program which could be valid for the next several years. The need for a change in the practicum program and its assumptions prompted us, the authors of the *New Quality of Teacher Practicums* project, to redesign the teacher practicums.

The University School of Physical Education in Wrocław educates, among others, physical education teachers, and in 2011–2014 executed a project the *New Quality of Teacher Practicums*¹. The project was targeted towards students at BSc level who take practicums in primary and lower secondary schools. The project authors planned and implemented several operations which, compared with the literature on the subject, were innovative not only in the scale of the native university, but in the scale of the country.

In Poland, aside from the duration of the teacher practicum, there were no predefined rules of its implementation². Universities and schools cooperating with them define the goals, contents, assignments and rules of practicums independently. The overview of the released literature on teacher practicums³ for future physical

¹ Project number: POKL.03.03.02-00-069/10.

² Since January 17, 2012, the so called standards of training teachers (listed in the Ordinance of the Minister of Science and Higher Education, as of January 17, 2012 on the standards of the education preparing to working as a teacher) have listed the objectives and goals of practicums.

³ The overview of the literature can be found further in the book.

education teachers brought to our attention the fact how little research had been done on the effectiveness of practicums or on the problems appearing during practicums in Poland. Part of the research cannot be used as a basis for drawing any conclusions for various reasons, such as too small a number of the examined people, or inappropriate statistical analysis procedures applied.

What is more, the feedback from students⁴ proved that previous prevailing method of executing practicums at the University School of Physical Education in Wrocław may be not the most effective one. It was particularly visible when comparing the reports of students from the past few years of practicums: the most effective practicums proved to be the supervised ones, i.e. those where a delegate from the university was chosen to carry out inspections in schools.

In our opinion, there was a necessity to change the rules of executing practicums so that, on one hand, we could use the results of the previous research in this field from around the world, and on the other, introduce our own solutions we could test and modify during the following practicums. The possibility to execute a project cofinanced by the European Union was the perfect solution to the situation.

Under the Priority 3.3.2 of Human Capital Operational Program⁵, the University School of Physical Education in Wrocław was granted a subsidy of about 3.2 million PLN⁶ for the implementation of the *New Quality of Teacher Practicums* project. The basis of the project was the implementation of a teaching practicum that was to meet several criteria set by the authors. First of all, they were supposed to let students build up the knowledge and assess it. Secondly, they were supposed to build up the space, organizationally and substantively, to hold the practicum, i.e. to prepare schools for the reception of students, so that the students could enter the environment which was prepared for them. Thirdly, a part of the project was to prepare teachers to implement the tasks set by the university. Very often school teachers not connected in any way to the university did not know its expectations, apart from completing teaching practicum documentation. The last but not least goal was to prepare supervisors – academic teachers supervising the teaching practicum.

⁴ As part of the documentation filled by students during and after the practicums, students were relating, among others, to the issue of satisfaction, usefulness, and problems that appeared during their practicum. They confronted the knowledge acquired with the possibility of using it at school, assessed the cooperation with a school teacher and suggested changes in the practicum program.

⁵ Priority 3.3.2 of POKL was a program entitled "Preparing chosen schools to implement a teaching practicum by students prepared to work in a teaching profession". The submission, written by (in alphabetical order) S. Czyż, PhD, H. Guła-Kubiszewska, Assistant Prof., M. Miszkurka, PhD, and W. Starościak, PhD, received the first prize in Competion 6 (round IX). As part of the submission, the suggestions of the Project Partner – Wrocław Municipality, which was represented by the Head of the Educational Projects Department, Jolanta Bednarska, and Ms. Monika Płoszaj, were also taken into consideration.

⁶ A little over 1 mln USD (values converted as of 2011).

Writing down the tasks for all parties involved in the realization of practicums necessitated close cooperation with the body supervising the schools. In our case, it was the Department for Education and Educational Projects of Wrocław Municipal Office, and especially the body chosen by the Wrocław Municipality for cooperation in the project – The Wrocław Teacher Training Centre (WTTC). The cooperation with WTTC started at the stage of writing the competition submission. It allowed for deciding on, among others, some indicators, which could be achieved during the project implementation. What is more, it was the cooperation with WTTC that helped to solve some issues which transpired during practicums. These were legal ambiguities (sanitary and epidemiological evaluation of students before the practicums, permission for the presence of third parties on the school premises, the rules of donating sports equipment for schools, and many others).

In the three publications we are submitting here, we included all assumptions of teacher practicums implemented in the project. What is more, we assessed the efficiency of practicums, which allows the researchers and others to look at the implementation of a practicum from the analytical point of view. At each level of education, i.e. in primary and lower secondary schools, we gathered the materials from around 1000 students taking up the practicum, 600 school teachers and nearly 200 academic teachers (supervisors). Despite the fact that the material was often gathered from the same people (the school teachers often took part in next editions of the practicum as supervisors, just as academic teachers), it is a number that allows us to draw general conclusions.

In the following publication we present the practicum assumptions under the *New Quality of Teacher Practicums* project and the research results of its implementation in primary and lower secondary schools. We also took the liberty to shortly present the history of physical education in Poland and to supplement the information which, in our opinion, can be interesting for a foreign reader.

We believe that the following publications will allow the reader not only to get familiar with our project, but to apply, in whole or in part, the ideas presented here when planning their own practicums preparing students to teach.

The authors

1. Physical education in Poland

1.1. The history of physical education in Poland

In Medieval Poland (IX–XIV century), there were two main trends in the development of physical education. They were strictly connected to the status of people living at that time. One trend was connected to the gentry, the other to peasants. The physical activity undertaken as part of these trends was strictly related to the functioning and lives of the representatives of these two classes. For the aristocrats (gentry), knighthood was the main goal. On the other hand, peasants were undertaking physical activity (the one not connected to their everyday hard, physical work) mostly for fun and pleasure (Gaj, Hądzelek 1997). In the XIII century, the first shooting companies started to appear.

A huge change in the perception of physical education took place during the Renaissance. In XVI century, Wojciech Oczko, the court doctor of the King Stefan Batory wrote a book *On Different Ailments of Human Body* (Oczko 1581). He stressed the importance of diet and the benefits of physical activity. Oczko was also the pioneer of calisthenics in Poland. Apart from Wojciech Oczko, there were other promoters of physical activity at the time: Sebastian Petrycy, Andrzej Frycz Modrzewski, Łukasz Górnicki (Gaj, Hądzelek 1997).

The turning point came in the Age of Enlightenment: Physical Education and Hygiene was introduced as a subject at Collegium Nobilium. It was introduced in 1740 thanks to Stanisław Konarski (Gaj, Hądzelek 1997). In the same century, king Stanisław August Poniatowski introduced an extensive physical education program at the Corps of Cadets. The National Education Committee, created in 1773 as the first organ in Europe responsible for education, reformed the education system in Poland. In one of the first regulations (*Regulations of The National Education Committee for academia and schools in the Polish State*, 1783) an entire chapter (Chapter XXV, Physical Education) was devoted to physical education. The Committee described the role of physical education at school, jobs of teachers and parents, as well as the program of physical education. Physical education was introduced in all schools under the supervision of the Committee. The Committee also recommended that other schools (both public and private), while not being under its jurisdiction, should also introduce physical education to the curriculum. School physical education had its own headmaster, who was responsible for the organization, implementation, and control of the teaching process. In a sense, these headmasters were the first physical education teachers. As part of physical education classes, students practiced, among others: running, fencing, horse riding, marching, racing, javelin throw, weight-lifting, etc. (Gołębiowski 1831). Moreover, the National Education Committee recommended swimming and military drill (Gaj, Hądzelek 1997).

At the end of XVIII century, Poland as a country ceased to exist. It was divided up between Prussia, Russia and Austria. Physical education in different parts of the country, as well as the entire education system, reflected different education systems operating in countries of occupants. In addition, the systems differed greatly between the countries. When examining the period of Partitions of Poland (from 1795, to 1918, when Poland regained independence), one has to examine the education systems of these countries. The Partitions of Poland meant the end of the National Education Committee.

It should be noted that it was during the partitions, since the 1880s when Polish Gymnastic Society "Sokół" started to hold courses for gymnastics teachers, who were supposed to work at schools under the Austrian Partition (Wroczyński 2003). Another institution that started training physical education teachers was Jagiellonian University in Krakow. Since 1895 it started providing two year courses for people who wanted to become physical education teachers. These courses were addressed to students of other specializations as supplementary courses. In 1913 they became institutionalized: the Physical Education Institute by Jagiellonian University opened, in which the two year training was offered. By comparison, in the part of Poland occupied by Russia, the only institution that offered physical education teacher training was a private school of Helena Kuczalska, operating in Warsaw since 1892.

In 1918 Poland regained independence. In the Resolution of the Polish Government of February 7, 1919, all aspects of the education of teachers, including physical education teachers, were regulated. These regulations were introduced in accordance with the settlements and postulates formulated by the so called Teachers' Convention, which was a meeting point for teachers from all regions of Poland. During these conventions, teachers shared their experience from each Partition. According to the Resolution, physical education teachers should complete, among others, courses in anatomy, physiology, anthropology, general and school hygiene, as well as a training in physical activities, involving physical games and activities (Gaj, Hądzelek 1997).

In 1919, the Physical Education and School Hygiene Institute at the Poznań University was opened, and in 1929 – Central Physical Education Institute in Warsaw. The Institute was brought into being by Marshall Józef Piłsudski, and transformed into University School of Physical Education, the first in Poland autonomic college created to educate physical education teachers.

After the World War II, more university schools of physical education opened. Now there are six of them. There are also physical education faculties at universities.

1.2. Physical education as a school subject

In 1918, when Poland had regained independence, the education system was implemented on four levels. In the 1920s the curriculum included two hours of physical education per week. In primary schools, the Ministerial Program suggested introducing 10 minutes long recesses every day, intended for a physical activity. However, the implementation of these guidelines (the number of hours of physical education and recesses) proved to be difficult. The financial situation varied greatly among schools, and was sometimes so hard that the schools were unable to employ (professionally) qualified physical education teachers (Gaj, Hądzelek 1997). Schools had different bases and sometimes they did not have any base at all. What is more, students' achievements were not evaluated, there were no standards or levels for students to reach (Gaj, Hądzelek 1997).

Since January 1, 1929 the number of physical education classes was increased to three per week. Curricula in public schools included 8 hours per week for physical education, games, activities, and school sport.

Since 1932 the Education System Act of March 11, 1932, along with the Ordinance of the Ministry of Religious Denominations and Public Enlightenment of May 30, 1933 regulated the matter of physical education classes in the entire educational system on all levels of education from kindergartens up to universities.

Since 1932 the ministerial programs included 3 hours of physical education per week in secondary schools (Gaj, Hądzelek 1997). Additionally, the act introduced 10 minute recesses for physical activity, as well as two hours of games, activities and outdoor practice.

During the World War II all universities, schools, sports clubs, etc. were closed. Some of them were also completely destroyed (Gaj, Hądzelek 1997). Practicing sport was prohibited by German occupants.

When the Second World War ended, Polish parliament announced in 1948 the act on general duty of vocational training, physical education, and military training for young people, as well as on sports and fitness training system. This act regulated the matter of physical education at school. The act scheduled 2 hours of physical education and 2 hours of after-school sports training for primary schools. In years 1956–1961 the number of physical education classes was increased to three per week, and since 1973 – up to five hours. However, the number was quickly reduced back to two hours per week.

1.3. Physical education as a school subject - the present situation

Presently, i.e. after the WWII, two types of documents regulate the issues of physical education in schools:

- 1. The education system act, which defines the education system in general.
- 2. Ordinances of the Ministry of Education, which detail the teaching curricula, including the number of hours designated for each subject on all levels of education.

The documents currently in force, i.e. the education system act of September 6, 1991 with further amendments, and the Ordinance of the Minister of National Education and Sport on the framework curricula in public schools from February 12, 2002 along with the changes introduced in 2005 and 2009, have defined the number of physical education classes in the following way:

- 1. primary schools: 3 hours + 1 hour;
 - grades 1–3: 3 hours + 1 hour;
 - grades 4–6: 3 hours + 1 hour;
- 2. lower secondary schools: 3 hours + 1 hour;
- 3. upper secondary schools: 3 hours + 1 hour;
- 4. basic vocational schools: 3 hours + 1 hour;
- 5. other schools, apart from higher education: 3 hours + 1 hour.

The additional hour of physical education marked above pertains only to schools having enough funds to implement it.

1.4. Assessment of students' achievements

Assessment of students achievements in physical education classes is regulated by the Ordinance of the Minister of National Education and Sport on terms and methods of assessment, classification and promotion of students, as well as conducting tests and exams in public schools, dated April 30, 2007. According to this act, the following are subject to assessment:

- 1. Educational achievements of students, including the level of knowledge and skills and their growth (improvement). The level of skill and knowledge required at each level of education, in each grade, is specified in the core curriculum.
- 2. Students' behaviour, especially observing social and ethical norms.

Each school is required to create their own school grading system. This system includes detailed grading criteria in physical education for each grade. According to the ordinance mentioned above, the school grading system should:

- inform students on their achievements and progress;
- help students plan their own development;
- motivate students to further work;
- inform students' parents on the progress, achievements, behaviour, predispositions and learning difficulties of their child;
- give teachers the opportunity to improve their teaching methods and class management.

Physical education teachers are required to create their own student grading systems, the so called physical education grading systems. Usually, such a system assesses the level of skills and the knowledge required for each grade. Some teachers also include the results of fitness level tests.

Physical education classes are held separately for boys and girls.

1.5. The education system in Poland

Since 1999, when education system reforms took place, there have been the following types of schools in Poland:

- 6-year primary schools (szkoła podstawowa),
- 3-year lower secondary schools (gimnazjum),
- upper secondary schools:

- 3-year vocational secondary schools (liceum zawodowe),
- 3-year general upper secondary school (liceum ogólnokształcące),
- 4-year technical upper secondary school (technikum),
- 2- or 3-year basic vocational school (szkoła zawodowa),
- 2-year supplementary general upper secondary school (*uzupełniające liceum ogólnokształcące*),
- 3-year supplementary technical upper secondary school (technikum uzupełniające).

Altogether, the education on primary and lower and upper secondary level lasts 12–13 years. The primary and lower secondary education is compulsory. After completing lower secondary school, at the level of general upper secondary school or technical upper secondary school, students can take the matriculation exam (*matura*). Passing the matura exam is compulsory in order to continue with the tertiary education.

In accordance with the Act of January 8, 1999 (introducing the education system reform), the 6-year primary schools are divided into two stages:

- 1. The early school education stage, grades 1–3. Before the reform, this stage was called the integrated education, which defined the teaching method quite well: one teacher led all subjects in blocks. It also involves broadly defined physical education which functions as movement classes here, and the only requirement of those is that they should be held daily, outdoors.
- 2. The second stage, grades 4–6. It is characterized by grade system learning process; i.e. particular grades are taught by specialized teachers. It is only at this level when we can talk about physical education classes.

Children begin their education in primary schools at the age of 6 (until 2013, the education could also start at the age of 7).

3-year lower secondary schools are also compulsory. They are attended by students aged 13–16. The goal of education on this stage is to identify and develop students' interests and predispositions, so that they could choose the upper secondary school reasonably. The lower secondary schools end with final exams, the results of which affect the possible choices for the next level of education.

A wide choice of upper secondary schools can help students plan their future, and already at this level, allows them to decide on learning a profession (this purpose is served by technical upper secondary schools and basic vocational schools). In technical or general upper secondary schools, students can take matura exam. Passing the matura exam is compulsory for a college and the results have huge impact on choosing the college. Higher education schools hold ranks in matura results and enrol to schools according to these ranks.

2. Polish standards of training teachers with teacher practicums

In Poland, there are so called standards of training teachers. Put into force by ordinances of the Minister of Science and Higher Education, they control the issues of teacher training requirements. These requirements determine, more or less specifically, goals, tasks, number of hours for each element of training, and sometimes even the contents. For example in 2004–2009, the ordinance in force controlled the issues of teacher practicums in the following manner:

2.1. The Ordinance of the Minister of National Education and Sport of September 7, 2004 on the standards of training teachers (Journal of Laws No. 207, item 2110)

Teacher practicums – minimum hour requirements for higher vocational studies:

- With a teaching specialization (main and supplementary) at least 180 hours total.
- For supplementary master studies, held for higher vocational studies students with teacher specialization at least 45 hours.
- For the uniform master studies with teaching specialization (main and supplementary) – at least 150 hours total.
- The uniform master studies with two teaching specializations (main and supplementary) – at least 210 hours total.

X. Teacher practicums

The main goals of teacher practicums include:

- 1) to get familiar with work organization in different schools and institutions, especially in those that may potentially employ future graduates;
- 2) to acquire the abilities of planning, teaching and documenting classes;
- 3) to acquire the abilities of supervising classes and documenting it;

- to acquire the abilities to analyse the work of a teacher and pupils during the discussion on the practicums by tutors and students;
- 5) to acquire the ability to analyse one's own work and its effects, and the work of pupils.

Teacher practicums are held in different types of schools and institutions, and they must be held in those institutions where the graduate acquires qualification to work in.

During the practicum, students are guaranteed the following forms of activity: visits in schools and institutions, supervising classes, assisting a teacher who is conducting classes, conducting classes with a teacher's assistance, conducting classes unassistedly, planning and discussing classes conducted by the students themselves and by others (teachers, students).

For higher vocational studies and uniform master studies, the classes conducted by the student should take at least 30% of time required in the program for the teacher practicums. At least 40% of the practicum time should be held during the last year of teaching education.

During teacher practicums, at least 30 hours should be executed in connection with training in psychology and pedagogics.

In the curriculum for the courses in pedagogics, psychology and methodology there should be enough time to prepare students for the practicum and its discussion.

Higher education schools which train teachers are required to systematically stay in touch with schools and institutions in which students complete teacher practicums.

Student's participation in classes held as part of teacher practicums has to be documented. Teacher practicums are course to assessment and the school practicum tutor's opinion is taken into consideration.

2.2. The Ordinance of the Minister of Education of March 12, 2009 on the detailed qualifications required from teachers and on defining schools and cases where teachers without higher education or graduation from a teacher training institution can be employed

Since 2009, anyone who met the following criteria of teacher training could become a teacher, including a physical education teacher:

§ 1, clause 3 of the ordinance: ...it should be understood as acquiring skills and knowledge in psychology, pedagogics and methodology taught for at least 270 hours along with the major (specialization) and positively graded teacher practicum – of at least 150 hours.

2.3. The Ordinance of the Minister of Science and Higher Education of January 17, 2012 on the standards of training teachers (Journal of Laws No. 207, item 2110)

The new ordinance detailed the matter of teacher practicums with respect to goals and tasks in a following way⁷:

The minimum number of practicum hours.

Module 2. Psychological and pedagogical training

- 1. General psychological and pedagogical training
- 2. Psychological and pedagogical training for teaching on given educational levels
- 3. Practicum, 30

Module 3. Didactical training

- 1. Basis of didactics
- 2. Didactics of the course (type of classes) on given educational levels
- 3. Practicum, 120.

The goal of teacher practicums is to shape the tutelary, educational, and didactic competences by:

- a) Getting familiar with a kindergarten, school or other institution where the practicum takes place, and in particular getting to know the tutelary, educational, and didactic tasks, the way of functioning, work organization, employees, pedagogical processes members, and the documentation.
- b) Observing: organized and spontaneous activities of formal and informal groups of pupils; activities of individual pupils, including pupils with special educational needs; interactions between an adult (teacher, tutor) and a child and interactions between children and youths (of the same and different age); processes of interpersonal and social communication in groups, with their regularities and disturbances; activities taken by the practicum tutor and classes conducted by the tutor; methods of integrating different activities by the practicum tutor, including tutelary, educational, didactic, aiding and therapeutic activities; group dynamics; roles of group members; behaviours and attitudes of children and adolescents; activities chosen by the practicum tutor in the course of classes conducted by the tutor; activities of pupils; methodical procedures used during classes,

⁷ The following ordinance on the standards of education was not in force when the project was written and submitted but came into force when the project was being executed.

methods and forms of work, as well as aids used by the teacher; methods of evaluating pupils; methods of giving and checking homework; way of functioning and activity of individual pupils during classes, including pupils with special needs and especially gifted pupils; organizing classroom space and its use.

- c) Cooperating with the practicum tutor in: taking care of and supervising the group, and ensuring the safety; taking educational actions resulting from existing situations; conducting organized educational classes; taking actions for pupils with special educational needs; planning and conducting classes; organizing teamwork; preparing didactic aids; using multimedia and information technology in didactic work; supervising and evaluating pupils; organizing classroom space; taking actions in arranging and providing psychological and pedagogical help.
- d) Taking the role of a tutor, in particular: diagnosing the group dynamics and the position of individuals in a group; getting to know students and pupils, their social situation, needs, interests and talents, as well as evaluating the level of development and preliminarily diagnosing dysfunctions and disorders; independently conducting the tutelary, and educational actions for groups and individuals in groups; taking care of a group in spontaneous activities of pupils; arranging and conducting pedagogical classes (including preventive actions and activities integrating the group) based on independently prepared scenarios; animating teams and the cooperation of members; organizing work of pupils in task groups.
- e) Taking the role of a teacher, particularly: planning classes; formulating goals; choosing the means and forms of work and didactic methods; customizing the methods and forms of work to the contents, education level and group dynamics; organizing and conducting classes based on independently created scenarios; using multimedia and information technology in the classroom; adapting the communication method during classes to the students' level of development; animating cognitive activities and a cooperation of students; developing the ability of acquiring knowledge with the use of information technology independently, teamwork management, adapting the actions taken to the level and limitations of students; conducting individual work with students (including students with special needs; taking educative actions in the course of a didactic work in event of: a security threat, violation of the rights of others, failure to comply with the established rules; cooperating with other teachers, tutors, guidance counsellor, psychologist, and specialists working with students.
- f) Conducting an individual work with students (including those with special educational needs); taking educational interventions in the event of a conflict, security threat, violation of the rights of others, failure to comply with the established

rules; taking care of students and pupils outside the kindergarten, school or institution.

g) Analysis and interpretation of the observed or experienced situations and educational incidents, including: keeping practicum documentation, confronting theory with practice, self-assessment in the course of executing tutelary and educational tasks (noticing one's own strengths and weaknesses); assessing the course of the actions taken and the achievement of the set goals; consulting the practicum tutor to discuss the observed situations and actions taken; discussing the gathered experience in a group of students.

IV. Practicum management

During the practicum, students conduct the following forms of activity:

1) visits in kindergartens, schools and institutions;

- 2) observing classes;
- 3) assisting a teacher who conducts classes;
- 4) conducting classes unassistedly;
- 5) planning and discussing classes conducted by the students themselves and by others (teachers, students).

Universities:

- 1) develop rules of completing the practicums;
- 2) prepare students to take part in the practicums;
- 3) ensure the possibility to discuss the practicums during the classes at the university;
- 4) systematically stay in touch with kindergartens, schools and institutions where students complete teacher practicums.

During the practicums, universities are obliged to provide students with the following:

- Conditions allowing to achieve practical preparation in terms of executing tutelary and educational tasks, as well as getting to know different classes and children groups, and gaining necessary teaching experience in a kindergarten, school or other institution in terms of work organization, planning, implementing and assessing the results of the teaching process.
- 2) Access to specialist laboratories, equipment, and teaching aids.
- 3) Supervision and help of a practicum tutor.
- 4) Conditions allowing to create outlines or scenarios of classes unassistedly, based on the information and guidelines given by a practicum tutor.
- 5) Conditions to conduct classes with the use of information technology, especially using Internet-based educational content and resources.

Practicums should mostly be held in parallel with university classes.

As shown above, even very detailed regulations of implementing teaching practicums from the 2012 ordinance allow for a lot of freedom for teacher training universities in determining the rules and organization of practicums.

3. Teacher practicums as part of teacher training on the example of the University School of Physical Education in Wrocław

The universities that train physical education students independently, in terms defined by specific acts and ordinances (see the previous chapter), specify the forms and details of the practicum implementation. Below we are presenting what the practicum implementation looked like before 2011, i.e. before the start of the *New Quality of Teacher Practicums* project, and after the project implementation.

3.1. Practicum management at the University School of Physical Education in Wrocław until 2011

Teacher practicums at the University School of Physical Education in Wrocław has been changing the form of implementation in time in terms of both the substance and formal (organizational) form. For example, until 2004, teacher practicums took place under the direct supervision of a didactic tutor, who was the University employee. It was their duty to carry out at least 3 inspections of each student at school and to document the cooperation with the school environment. One tutor from the University supervised 10 students at school in the area of Wrocław and nearby, chosen by the University. The practicum took 4 weeks in primary schools, 3 weeks in lower and upper secondary schools. It also included vocational practicums at a special school (3 weeks) and in sports clubs (4 weeks). Every academic employee of the university could become a tutor.

In the following years, the form and tasks of practicums changed. It can be found in the following Rector's directives. Directive no 35/2006 of November 13, 2006 mostly changed the form of supervision over the students during their practicums. The practicum time span remained unchanged but the university relinquished the direct supervision of students, and direct contacts between the university tutor and the school where the practicum took place. Students could complete teacher practicums in a school they chose, anywhere in Poland. One employee (university tutor) had an educational supervision over 20 students. The supervision covered practicum kick-off meetings (discussing practicum goals and tasks), and the practicum evaluation based on available documentation (practicum journal). The supervisor was an employee of a school physical education methodology unit or other specific methodologies unit.

Another change came in 2009: the Wrocław University School of Physical Education's Rector directive No. 44/2009 of November 25, 2009 introduced a change in the number of students that can be under the supervision of one employee – not fewer than 20. In the same year the directive no 49/2009 of December 4, 2009 introduced changes in the number of students in a group depending on the educational supervision pay rate. Groups could be of: 15–25 people, 26–35 people, over 35 people – the practicum evaluation was based on (as previously) the practicum journal assessment.

In 2011, the directive no 25/2011 of June 27, 2011 repealed the previous directives on "educational supervision over a group of students", which resulted in repealing the supervision by the methodology units – the evaluation was made by the head of the Teaching Practicum Laboratory.

The analysis of their own research as well as other authors' research and the feedback from students (negative assessment of practicum implementation) activated physical education methodologists to introduce new solutions which would enable students to gain methodological competences and gather professional insight as a result of monitoring the students' activity, and not supervising it. What is more, the Supreme Audit Office audit in 2010 (Department of Science... 2010) revealed the weaknesses of the Polish education system which is responsible for a vocational training of physical education teachers. Another audit in 2013 (Department of Science... 2013) resulted in similar conclusions. It should be assumed that the most useful practical knowledge lies in practicing efficient and effective everyday teaching activities. It seems necessary to use the teaching experience of teachers, which is a source of important guidelines for applicants for teachers and which gives the necessary foundation for the future vocational activity if enough time is spent on practical implementation. Yet the application approach to the practicum (adapting research results of educators to practical activity and implementing technical mastery in routine activities) should be replaced by actions supporting the individual effort of students in developing their own autonomy and activating them to engage in shaping new school (educational) reality. It also applies to the process of preparing physical education teachers for the teaching profession. Unfortunately, students at teaching departments very often acquire information on future employment in the ways that differ greatly from the program assumptions (Komar 2000).

3.2. Practicum management at the University School of Physical Education in Wrocław after 2011

Trying to change the situation described above, the University School of Physical Education in Wrocław developed a program which since the academic year 2011/2002, greatly changed the rules of implementing teacher practicums in primary and lower secondary schools⁸.

The New Quality of Teacher Practicums is an innovative project in force from February 1, 2011 to December 31, 2014 at the University School of Physical Education in Wrocław, co-financed by the national budget and European Union funds under the European Social Fund, Human Capital Operational Program, aimed at improving the quality of physical education teacher training. The goal of the initiative undertaken by the university is a comprehensive change in organization and quality improvement of teacher practicums taking place at the University. This innovative project is addressing third year BSc students at the Physical Education Department who complete practicums in primary and lower secondary schools, as well as nominated and certified teachers who hold the position of practicum tutors in primary and lower secondary schools in Wrocław. The enterprise includes the implementation of the proprietary program of teacher practicums in primary and lower secondary schools, as well as the program to broaden the knowledge of school teachers, to equip them with modern training materials on the practicum, and to train some academic teachers for taking supervising positions (people monitoring the course of the practicum).

During the project implementation, each third year student of the Physical Education Department is required to complete 120 hours of teacher practicums in a primary school and 90 hours in a lower secondary school⁹. The course of each practicum is supervised, i.e. at least two meetings of an academic teacher with the student and a school teacher who is a tutor take place. This way, the student can receive an instant feedback from the school tutor and the supervisor. The up-to-date assessment of conducted classes, guidelines on reforming or improving them, and monitoring on the documentation kept allow students to analyse the teaching and educating procedure, and acquire additional practical competences, as well as deepen the subject knowledge (see http://www.praktyki.awf.wroc.pl/).

⁸ The New Quality of Teacher Practicums – Project number: POKL.03.03.02-00-069/10; competition No. 6/ POKL/3.3.2/2009, co-financed by the European Union funds under the European Social Fund.

⁹ The list of schools participating in the project is presented in Appendix 1.

The project puts special emphasis on the individual development of each student to prepare them as well as possible for the future physical education teacher profession. Introducing the supervision was an important tool to increase the efficiency of achieving the practicum goals and tasks (Nęcki 2000; Zuba 2005). In an educational sense, supervision means "monitoring" or "observing" and it constitutes the process of mutual learning and watching over the practicum, which leads to strengthening the professional development of a student (for the benefit of the pupils). Therefore, it is a process of mutual exchange of experience, thoughts, analysis of the issue sources, looking for the essence of problems, and reaching new solutions (Nęcki 2000). The professional benefit from the supervision is acquiring – thanks to the re-analysis made with different people involved – a better insight to the reasons of any appearing difficulties. The analysis results in gaining a new, wider perspective on a given problem. Thanks to supervision one can implement important changes in the workflow and make important changes in their own lives.

Through contacts with students at school, an academic teacher (and with a physical education teacher, a practicum tutor) tries to reinforce the personal development processes of students, guides the creation of their own strategies for learning and extending their education, helps students synthetize the theoretical knowledge acquired during studies and use it in their own educational ways. The academic teacher's responsibilities include: helping a student in gaining self-awareness and self-assessment of the knowledge in physical education methodology, solving the methodological and educational issues and difficulties, obtaining the ability to develop their own concepts and independent work (setting individual goals and using selected teaching methods). That is why an academic teacher should stimulate the student to develop the curiosity in learning their personality strengths and weaknesses (building an adequate self-esteem), to gain the motivation to creative learning, and to take responsibility for their development and activity (Guła-Kubiszewska, Lewandowski 2007).

Developing a new form of cooperation with a physical education teacher, the student's tutor at school, was an important element of improving the quality of teacher practicums. The mentor role ascribed to the tutor was to help students to use and develop their own potential by their own work and activity. The mentor should be a trustworthy person with developed competences, a master, or a role model. Mentoring means a partnership between a master (the teacher) and an apprentice (the student), oriented to discovering and developing the student's potential. It is based on inspiration, stimulation and leadership. Thanks to the master's endeavours, the student learns to know themselves, develops self-consciousness, and chooses their own path to professional self-realization.

Monitoring includes counselling, evaluation and help in programming the student's success as a future competent physical education teacher, a guide to the world of body.

The new teacher practicum model has been based on a creative cooperation with students and a school environment, in the form of practicum monitoring and supervision. It required a substantial preparation from all the parties involved in the practicum process (the student – a school teacher; the mentor – an academic teacher, a supervisor). To achieve this, a series of training sessions for the teachers involved in the project were carried out. Before each practicum, 48-hour training and discussion seminars for primary school and lower secondary school teachers were carried out. They were meant to prepare physical education teachers to introduce the quality and organizational changes in teacher practicums in physical education classes in schools.

A detailed training program was developed and handed to teachers as scripts:

- 1. Guła-Kubiszewska H., Lewandowski M., Bieć E. (May–June 2011), Seminarium Szkoleniowo-Dyskusyjne dla nauczycieli szkół podstawowych, Nowa jakość praktyk pedagogicznych, AWF, Wrocław.
- 2. Guła-Kubiszewska H., Lewandowski M., Bieć E. (May 2012), Seminarium Szkoleniowo-Dyskusyjne dla nauczycieli szkół podstawowych. Nowa jakość praktyk pedagogicznych, AWF, Wrocław.
- Guła-Kubiszewska H., Bieć E. (May 2013), Seminarium Szkoleniowo-Dyskusyjne dla nauczycieli szkół podstawowych. Nowa jakość praktyk pedagogicznych, AWF, Wrocław.
- 4. Guła-Kubiszewska H., Lewandowski M., Bieć E. (February 2012), Seminarium Szkoleniowo-Dyskusyjne dla nauczycieli gimnazjów. Nowa jakość praktyk pedagogicznych, AWF, Wrocław.
- 5. Guła-Kubiszewska H., Lewandowski M., Bieć E. (November 2012–February 2013), Seminarium Szkoleniowo-Dyskusyjne dla nauczycieli gimnazjów. Nowa jakość praktyk pedagogicznych, AWF, Wrocław.
- 6. Guła-Kubiszewska H., Bieć E. (January 2014), Seminarium Szkoleniowo-Dyskusyjne dla nauczycieli gimnazjów. Nowa jakość praktyk pedagogicznych, AWF, Wrocław.

The goal of the training was to prepare teachers to co-supervise the student's work at all stages of teaching and educating work:

- reflective approach to conducting a pedagogical diagnosis in the process of PE at school;
- understanding the rules of operationalizing PE classes goals;
- improving skills of describing the subject and detailed tasks of the lesson from the perspective of meeting the curriculum requirements described in thematic blocks of primary/lower secondary school;

- choosing the methodological and educational contents in planning tasks connected to assisting and conducting PE classes;
- conducting evaluating inspection, advisory and perfecting inspection, and diagnostic inspection;
- developing professional self-reflection of a student in acquiring physical education teacher competences;
- using the form and methods of work adequately to operational goals in a methodological unit, resulting from thematic blocks of the core curriculum;
- creative programming and planning the prospective (long- and mid-term) goals;
- creating a proprietary assessment system which would encourage pupils to attend physical education classes and spur individual independent activities as well as selfeducation in different fields of physical culture: sports, recreational, health focused or aesthetical (in accordance with a school-specific program).

The responsibilities of a mentor (a practicum tutor on behalf of the school) and a supervisor (a practicum tutor on behalf of the university) were defined.

Clarifying the responsibilities of a mentor, particular attention was paid to the following:

- 1. A mentor, or a teacher practicum tutor, can be a school teacher with a full vocational training (appointed or certified) working full time or part time, who completed the training on methods of implementing the supervised practicums.
- 2. The mentor takes care of and supervises the students participating in teacher practicums at school and lets them fulfil the practicum program tasks in an appropriate order, as well as monitors the quality.
- 3. Stimulates the student to verify the knowledge and skills they have in creative lesson planning.
- 4. Together with the student, determines the framework plan of work and accepts its record in the teacher practicum journal no later than on the third day of the practicum.
- 5. Discusses the quality of particular tasks of the practicum with the student and the supervisor.

The responsibilities of the supervisor, the practicum tutor from on behalf of the university, were very demanding:

1. The practicum supervisor, the teacher practicum tutor, can be a teacher of the group of research and education employees at the University who received training on how to implement supervision. Supervision means "monitoring" or "observing" and it constitutes a process of mutual learning and watching over the practicum, which leads to strengthening the professional development of a student (for the benefit of the pupils).

- 2. The tasks of the supervisor (an academic teacher):
 - a) discussing the relations which the student develops with pupils;
 - b) strengthening the process of individual development of students, developing one's own strategies of education and improvement;
 - c) helping students synthetize the theoretical knowledge acquired during studies and use it in their own educational ways;
 - d) helping the student gain self-awareness and self-assessment of the knowledge in physical education methodology, solve the methodological and educational issues and difficulties, obtain the ability to develop their own concepts and independent work (setting individual goals and using selected teaching methods);
 - e) stimulating the student to develop the curiosity in learning their personality strengths and weaknesses (building an adequate self-esteem), and to gain the motivation to creative learning, and to take responsibility of their development and activity.

3.3. Programs and regulations developed for practicums in primary schools as part of the New Quality of Teacher Practicums project

In some aspects, the rules and regulations for school teachers and academic supervisors overlapped¹⁰. Yet the practicum guidelines in the context of goals, tasks, and even the practicum length (they are longer in primary schools than in lower secondary schools) differed significantly. Below, the rules, program and ordinances of practicum implementation in primary schools are presented¹¹.

¹⁰ It is reflected in the regulations. See rest of the publications concerning the practicum as part of the project.

¹¹ The regulations introduced here were approved by the Physical Education Department's Deputy Dean of Teacher Practicums for Students.

3.3.1. Rules of recruitment and work of a school teacher acting as a practicum tutor

For the practicums held as part of the New Quality of Teacher Practicums project

Chapter 1 GENERAL PROVISIONS

- 1. The teacher practicum is an integral part of the student training process at full-time and extramural studies and it requires a compulsory credit.
- 2. The teacher practicum requirement results from the following:
 - Art. 66 of the Higher Education Act of May 23, 2012 (Journal of Laws No. 0/2012, item 572), § 13 of the Ordinance of the Minister of Science and Higher Education of July 12, 2007 on standards of education for different specializations and education levels, as well as modes of creating and conditions that have to be met by the university to lead interdisciplinary programs and multi-majors (Journal of Laws No. 164/2007, item 1166, annex 113).
 - The Ordinance of the Minister of Science and Higher Education of September 7, 2004 on the standards of training teachers (Journal of Laws No. 207, item 2110).
 - The Statutes of the University School of Physical Education in Wrocław, § 52, sec. 2 with regards to §16 sec. 5 of the Wrocław University School of Physical Education Regulations.
 - Art. 42 of the Act of November 21, 2008, The Teacher Charter.
- 3. Terms used in the regulations:
 - Rules the rules of recruitment and work of a school teacher acting as a practicum tutor created under the project.
 - Project Project number WND 03.03.02-00-069/10, New Quality of Teacher Practicums.
 - University: University School of Physical Education in Wrocław, the project leader.
 - Partner Wrocław Municipal Office, the authorized authority: The Wrocław Teacher Training Centre (WTTC).
 - ST school teacher, a teacher practicum tutor in a primary or lower secondary school.
 - AT academic teacher, a teacher practicum tutor on behalf of the university.

§ 2

- 1. The rules pertain to school teachers undertaking the role of a teacher practicum tutor executed as part of the *New Quality of Teacher Practicums* project in primary and lower secondary schools by students taking 5 and 6 semester of full-time or extramural studies at the university in academic years 2011/2012, 2012/2013, 2013/2014.
- 2. The Dean of the Physical Education Department of the University is responsible for the execution of teacher practicums at the University at the Physical Education Department and Physical Education Specialization.
- 3. The units responsible for the organization and implementation of teacher practicums implemented under the Project are the Unit of the Methodology of Physical Education and Teaching Practicum Laboratory at the Project Leader side, and WTTC at the Project Partner side.

Chapter 2 SCHOOL TEACHER RECRUITMENT CRITERIA

- 1. School teachers are selected from the group of appointed and certified teachers employed in primary and lower secondary schools in Wrocław according to the following ST recruitment criteria (Table 1).
- 2. The first recruitment will take place during the first year of the project implementation.
- 3. As a result, it is predicted that at least 220 STs (110 from primary and 110 from lower secondary schools) would be employed, and a backup list of STs would be created.
- 4. When entering the recruitment process, ST files a Project entry declaration in accordance with PEFS.
- 5. If necessary, an additional recruitment can be carried out to be decided by the Project Manager.
- 6. If an ST selected in the primary or additional requirement decides not to participate in the Project or does not meet the work criteria listed in § 4 point 2, they will be substituted by an ST from the backup list.
- 7. If an ST does not follow the work rules listed in § 4 point 2, they may be excluded from participation in the project. They will be substituted by an ST from the backup list.

Table 1. Criteria for selecting physical education, and compensation and corrective gymnastics teachers to hold the position of the supervised teacher practicum tutor in primary and lower secondary schools for the base course (physical education) and the additional course (compensation and corrective gymnastics)

CRITERION	POINTS
Academic title	MSc – 1; PhD – 2;
Professional degree	appointed teacher – 2; certified teacher – 3; professor of education – 4;
Years worked at school as a teacher of physical education or corrective gymnastics	Less than 5 years – 1; up to 10 – 2; up to 15 – 3; up to 20 – 4; up to 25 – 5; over 25 – 6;
Entitlement to conduct two types of educational classes – physical education or corrective gymnastics	5
Managing position (or a self-study team leader in a teacher team)	3
Methodological publications	3 (regardless of the size)
Instructor or coach entitlement	1 for each
Cooperation with a university as part of the "Exercise School"*	10
Educational supervision over teacher practicum implementation by students*	For the last 5 years has been tutoring: 1 time – 1 point; 2 times – 2 points etc., up to max 15 points
* Applies to physical education teachers.	

Chapter 3

RULES OF WORK AND REMUNERATION OF SCHOOL TEACHERS

- 1. School teachers are selected from the group of appointed and certified teachers in accordance with the ST recruitment criteria defined in § 3.
- 2. ST conducting the practicum supervises and tutors the group:
 - a) 1–2 students in the main course (physical education) in primary and lower secondary schools and in the additional course (compensation and corrective gymnastics) in lower secondary schools. According to the Ministry of National Education document No. DFS-WM-MW-0902/069(7)/2011/8565 of July 12, 2011, the number of students under the ST supervision can be increased in reasonable individual cases.
 - b) 1–6 students in additional course (compensation and corrective gymnastics) in a primary school.
 - c) When assigning students to particular STs, students' preferences can be taken into consideration.

3. ST's duties:

- a) Supervises and tutors the student who takes part in the teacher practicum at school.
- b) Allows the student to execute the practicum program tasks in an appropriate order, as well as monitors the quality.
- c) Stimulates the student to verify the knowledge and skills they have in creative lesson planning.
- d) Together with the student, determines the framework plan of work and accepts its record in the teacher practicum journal no later than on the third day of the practicum.
- e) Discusses the quality of particular tasks of the practicum with the student and the AT.
- f) After each day of classes, notes the remarks in a monitoring sheet of the practicum program.
- g) Is obliged to immediately inform AT in the case of a negligent fulfilment of teacher practicum tasks (being late, failing to meet the daily or weekly minimum time limits for being at school, deficiencies in the required practicum documentation, etc.).
- h) Decides on a final grade together with the AT.

§ 5

1. For tutoring the student, the ST gets paid the hourly gross pay determined in a detailed Project budget.

FINAL PROVISIONS

- 1. These rules come into force on the day of signing, with effect from April 1, 2011.
- 2. The rules apply in their full extent to the STs who are practicum tutors in primary schools in years 2011–2013 and in lower secondary schools in years 2012–2014.
- 3. Any matters not covered by these rules and any disputes arisen will be resolved by the University Rector in agreement with the Project Manager.
- 4. The rules may be changed in any scope. The grounds for such changes can include: changes in the Project, substantial changes made at the request of school and academic teachers, or students. The changes have to be accepted by people responsible for substantial practicum supervision. Any possible changes in the rules will be announced before the start of the practicum and made known to STs before the practicum entry declaration is signed.

3.3.2. Rules of recruitment and work of an academic teacher acting as a practicum supervisor

For the practicums held as part of the New Quality of Teacher Practicums project

Chapter 1 GENERAL PROVISIONS

- 1. The teacher practicum is an integral part of the student training process at full-time and extramural studies and it requires a compulsory credit.
- 2. The teacher practicum requirement results from the following:
 - Art. 66 of the Higher Education Act of May 23, 2012 (Journal of Laws No. 0/2012, item 572), § 13 of the Ordinance of the Minister of Science and Higher Education of July 12, 2007 on standards of education for different specializations and education levels, as well as modes of creating and conditions that have to be met by the university to lead interdisciplinary programs and multi-majors (Journal of Laws No. 164/2007, item 1166, annex 113).
 - The Ordinance of the Minister of Science and Higher Education of September 7, 2004 on the standards of training teachers (Journal of Laws No. 207, item 2110).
 - The Statutes of the University School of Physical Education in Wrocław, § 52, sec. 2 with regards to §16 sec. 5 of the Wrocław University School of Physical Education Regulations.
- 3. Terms used in the regulations:
 - Rules the rules of recruitment and work of an academic teacher acting as a practicum tutor created under the project.
 - Project Project number WND 03.03.02-00-069/10, New Quality of Teacher Practicums.
 - University: University School of Physical Education in Wrocław, the project leader.
 - Partner Wrocław Municipal Office, the authorized authority: The Wrocław Teacher Training Centre (WTTC).
 - ST school teacher, a teacher practicum tutor in a primary or lower secondary school.
 - AT/supervisor academic teacher, a teacher practicum tutor on behalf of the university.
 - Student a student.

§ 2

- 1. The rules pertain to school teachers undertaking the role of a teacher practicum supervisor executed as part of the *New Quality of Teacher Practicums* project in primary and lower secondary schools by students taking 5 and 6 semester of full-time or extramural studies at the university in academic years 2011/2012, 2012/2013, 2013/2014.
- 2. The Dean of the Physical Education Department of the University is responsible for the execution of teacher practicums at the University at the Physical Education Department and Physical Education Specialization.
- 3. The units responsible for the organization and implementation of teacher practicums implemented under the Project are the project office in the Unit of the Methodology of Physical Education at the Project Leader side, and WTTC at the Project Partner side.

Chapter 2 ACADEMIC TEACHER RECRUITMENT CRITERIA

- 1. Academic teachers will be selected from the group of research and education employees or education employees of the University with at least three years of experience in didactic work based on the AT recruitment criteria (Table 1).
- 2. The recruitment will be conducted in accordance with the principle of equal opportunities for women and men.
- 3. The first recruitment will take place during the first year of the project implementation.
- 4. As a result, it is predicted that at least 38 ATs (10 for compensation and corrective gymnastics, and 28 for physical education) would be employed, and a backup list of ATs would be created.
- 5. When entering the recruitment process, ST files a Project entry declaration in accordance with PEFS and the Project recruitment questionnaire.
- 6. If necessary, an additional recruitment can be carried out to be decided by the Project Manager.
- 7. If an AT selected in the primary or additional requirement decides not to participate in the Project or does not fulfil the obligations listed in § 4 point 2, they will be substituted by an AT from the backup list.
- 8. If an AT does not follow the work rules listed in § 4 point 2, they may be excluded from participation in the Project and replaced by an AT form the backup list.

Table 1. Criteria for selecting AT to hold the position of the teacher practicum tutor in primary and lower secondary schools for the base course (physical education) and the additional course (compensation and corrective gymnastics)

CRITERION	POINTS
Academic title	MSc – 1; PhD – 2; Assistant Professor, PhD – 3; Professor – 4
Position	assistant – 1; senior lecturer- 2; adjunct professor – 3; assistant professor – 4, associate professor – 5; professor – 6
Years worked at the University	Less than 5 years – 1; up to 10 – 2; up to 15 – 3; up to 20 – 4; up to 25 – 5; over 25 – 6;
Years worked at school* Years worked at the institution providing corrective gymnastics**	Less than 5 years – 1; up to 10 – 2; up to 15 – 3; up to 20 – 4; up to 25 – 5; over 25 – 6;
Managing position at the University	3
Employed in units/teams providing such majors as physical education methodology, and the theory and methodology of: physical games, gymnastics, track and field, swimming, physical games and activities*	2
Employed in units providing classes in compensation and corrective gymnastics**	1
Methodological publications	1 (regardless of the size)
Cooperation with a school as part of the "Exercise School"*	10
Educational supervision over teacher practicum implementation by students*	For the last 5 years has been tutoring: 1 time – 1 point; 2 times – 2 points etc., up to max 15 points

* Concerns ATs applying for the position of a practicum tutor for physical education teachers.

** Concerns ATs applying for the position of a practicum tutor for compensation and corrective gymnastics teachers.

Chapter 3 DUTIES AND REMUNERATION OF ACADEMIC TEACHERS

- 1. The AT supervises and tutors a group of 6–15 students for the base course (physical education) and 14–22 for the additional course (compensation and corrective gymnastics).
- 2. AT's duties:

- a. Obliges to participate in a training on the supervision implementation method and duties resulting from the their part in the Project and to supervise teacher practicum in primary and lower secondary schools held by University students listed in art 8 point 1.
- b. Conducts supervision supervision means 'monitoring' or 'observing'; it constitutes a process of mutual learning and watching over the practicum, which leads to strengthening the professional development of a student (for the benefit of the pupils).
- c. Discusses the relations that a student makes with pupils; develops their consciousness, and an individual style of pedagogical contact, and creating relationships with others.
- d. Through contacts with students and with STs, an AT tries to reinforce the personal development processes of students, guides the creation of their own strategies for learning and extending their education, helps students synthetize the theoretical knowledge acquired during studies and use it in their own educational ways.
- e. Helps the student gain self-awareness and self-assessment of the knowledge in physical education methodology, solve the methodological and educational issues and difficulties, obtain the ability to develop their own concepts and independent work (setting individual goals and using selected teaching methods).
- f. Stimulates the student to develop the curiosity in learning their personality strengths and weaknesses (building an adequate self-esteem), and to gain the motivation to creative learning, and to take responsibility of their development and activity.
- g. The supervision includes at least 2 meetings of an AT, an ST and a student for the physical education and 1 meeting for the compensation and corrective gymnastics during the course of the practicum.
- h. The supervision should be preceded by the introductory meeting with students and teachers who tutor the students at a given school to present and discuss the principles and organization of the supervision.
- i. The supervision includes the inspection of classes or activities held by the student, and discussing it.
- j. The AT should assign at least two lesson periods to inspecting and discussing classes.
- k. The classes or activities should be discussed immediately after they are completed. In reasonable individual cases it can be postponed until the next day.

- I. The AT documents each session of supervision in the Practicum Program Monitoring Sheet. The AT writes down their remarks, the ST's remarks and student's remarks on the observed actions; gives suggestions on the further work, writes down the grades given by them, by the ST, as well as a student's self-assessment; during the last supervision the AT summarizes the student's work and determines the grade together with the ST.
- m. The final grade from each part of the teacher practicum should be determined a week after the end of the practicum at the latest.
- n. After grading the supervised part of the practicum, the AT immediately delivers the documentation to the Project office.

§ 5

1. For conducting the supervision, the AT gets paid the hourly gross pay determined in a detailed Project budget.

FINAL PROVISIONS

§ 6

- 1. These rules come into force on the day of signing, with effect from April 1, 2011.
- 2. The rules apply in their full extent to the ATs who are practicum tutors in primary schools in years 2011–2013 and in lower secondary schools in years 2012–2014.
- 3. Any matters not covered by these rules and any disputes arisen will be resolved by the University Rector in agreement with the Project Manager.
- 4. The rules may be changed in any scope. The grounds for such changes can include: changes in the Project, substantial changes made at the request of school and academic teachers, or students. The changes have to be accepted by people responsible for substantial practicum supervision. Any possible changes in the rules will be announced before the start of the practicum and made known to ATs before the practicum entry declaration is signed.

3.3.3. Rules of organization and execution of teacher practicums held as part of the *New Quality of Teacher Practicums* project (in force for students)

Chapter 1 GENERAL PROVISIONS

§ 1

1. The teacher practicum is an integral part of the student training process at full-time and extramural studies and it requires a compulsory credit.

- 2. The teacher practicum requirement results from the following:
 - Art. 66 of the Higher Education Act of 26 March 2012 (Journal of Laws No. 0/2012, item 572), § 13 of the Ordinance of the Minister of Science and Higher Education of July 12, 2007 on standards of education for different specializations and education levels, as well as modes of creating and conditions that have to be met by the university to lead interdisciplinary programs and multi-majors (Journal of Laws No. 164/2007, item 1166, annex 113).
 - The Ordinance of the Minister of Science and Higher Education of September 7, 2004 on the standards of training teachers (Journal of Laws No. 207, item 2110).
 - The Statutes of the University School of Physical Education in Wrocław, § 55, sec. 2 with regards to §16 sec. 5 of the Wrocław University School of Physical Education Regulations.
 - Art. 42 of the Act of November 21, 2008, The Teacher Charter.
- 3. Terms used in the regulations:
 - Rules the rules of organization and execution of teacher practicums held as part of the New Quality of Teacher Practicums project.
 - Project Project number WND 03.03.02-00-069/10, New Quality of Teacher Practicums.
 - University/leader University School of Physical Education in Wrocław.
 - Partner Wrocław Municipal Office, the authorized authority: The Wrocław Teacher Training Centre (WTTC).
 - ST school teacher, a teacher practicum tutor in a primary or lower secondary school.
 - AT academic teacher, a teacher practicum tutor on behalf of the university.
 - Journal teacher practicum journal for a primary or lower secondary school.

- 1. The rules of organization and execution of teacher practicums determine the methods of organization and implementation of teacher practicums held as part of the *New Quality of Teacher Practicums* project, as well as the criteria for getting credits for them, and duties of the organizers and participants.
- 2. The Dean of the Physical Education Department of the University is responsible for the execution of teacher practicums at the University at the Physical Education Department and Physical Education Specialization.
- 3. The agreement on conducting continuous vocational and teaching practicums for students from Physical Education Department at the University with educational institutions has been concluded between the Rector of the University School of Physical Education in Wrocław, represented by the Dean of Physical Education Department, and the school headmaster for a specific period.

- 4. The agreement sets the rules of conducting the practicums, i.e. confirmation of admission for the practicum, setting the place and time of the practicum, the legal basis of the remuneration for the teachers acting as practicum tutors, and responsibilities of a school admitting the student for the practicum.
- 5. The units responsible for the organization and implementation of teacher practicums implemented under the Project are the project office in the Unit of the Methodology of Physical Education at the Project Leader side, and WTTC at the Project Partner side.

§ 3

- The teacher practicum rules apply to students of full-time or extramural BSc studies at the university taking 5 and 6 semester in academic years 2011/2012, 2012/2013, 2013/2014 with the exception of the students listed in § 8 point 1, items a-c.
- 2. The rules list the general rules of the teacher practicums, including the practicum goals and forms, time and place, criteria for getting credits for them, as well as duties of students and tutors, school teachers and academic teachers.

TEACHER PRACTICUM GOALS

§ 4

- 1. According to the Ordinance of the Ministry of National Education and Sport of September 7, 2004, on the standards of training teachers, the teacher practicum goals are the following:
 - a) to get familiar with work organization in different schools and institutions, especially in those that may potentially employ future graduates;
 - b) to acquire the abilities of planning, teaching and documenting classes;
 - c) to acquire the abilities of supervising classes and documenting it;
 - d) to acquire the abilities to analyse the work of a teacher and pupils during the discussion on the practicums by tutors and students;
 - e) to acquire the ability to analyse one's own work and its effects, and the work of pupils.

2. General and specific goals, tasks of particular teacher practicums, as well as rights and responsibilities of the University students with respect to practicum execution are included in practicum journals.

STUDENT RIGHTS AND RESPONSIBILITIES

- 1. The teacher practicum requires a compulsory credit with an instructor's signature.
- 2. A student undergoing a teacher practicum at school has the right to:

- a) Make mistakes.
- b) Receive help, support and kindness from the practicum supervisors.
- c) Get to know the school organization structure.
- d) Familiarize themselves with the curriculum and the school's teaching and educating work program.
- e) Familiarize themselves with the physical education curriculum and work plan of the practicum tutor.
- f) Carry on the discussions and interviews with the school headmaster, teachers, pupils, guidance counsellor, healthcare representative, etc.
- g) Inspect classes and activities of STs who give their consent.
- h) Participate in teaching staff meetings and self-study team meetings.
- i) Receive a framework and detailed program for working at school on the third day of the practicum at the latest.
- 3. The student is obliged to:
 - a) Represent the University with dignity.
 - b) Fulfil all tasks resulting from the practicum and listed in the practicum journal.
 - c) Carry out the instructions of the school headmaster, school teacher and the academic teacher (University practicum tutor), and participate in the school life.
 - d) Observe the occupational safety and health regulations.
 - e) Keep the practicum journal up to date.
 - f) Change into sportswear and footwear at school grounds.
 - g) Participate in the practicum at school at the time given by the University, in accordance with the daily and weekly time limits (including the physical education, and compensation and corrective gymnastics).
 - h) Hand over the framework plan of work to the University tutor on the third day of the practicum at the latest.
 - i) Complete the practicum program included in teacher practicum journal.
 - j) Notify the University tutor in the case of any absence (e.g. due to an illness).

Chapter 2 THE PRACTICUM ORGANIZATION AND PLACE

- 1. The teacher practicums implemented under the Project take place in primary and lower secondary schools in Wrocław, appointed by the University and in agreement with the Partner.
- 2. The teacher practicums on full-time or extramural studies take place continuously in the following formats:

- a) 4 weeks in primary schools (120 hours: 90 hours of physical education and 30 hours of compensation and corrective gymnastics);
- b) 3 weeks in lower secondary schools (90 hours: 70 hours of physical education and 20 hours of compensation and corrective gymnastics).
- 3. Students complete teacher practicums at the time set in the curriculum (5th semester in primary schools, 6th semester in lower secondary schools).
- 4. Before commencing the practicum, students file a Project entry declaration in accordance with PEFS.
- 5. The students' work time is as per The Teacher Charter (5–7 hours per day).
- 6. The students' weekly work time for the school practicums is 30 hours.
- 7. Students are required to fulfil the practicum tasks on Saturdays and Sundays if this is due to the educational tasks carried out by the school.
- 8. The practicum is subject to an ongoing evaluation with respect to quality of fulfilling the of goals and tasks, by way of systematic contacts of STs and ATs with the student.
- 9. The student can be dismissed from the obligation to fulfil a vocational practicum if they show a certificate of having been employed as a physical education teacher for at least three months and on at least a half-time basis.

Chapter 3

PRACTICUM TUTORS AND PRACTICUM ASSESSMENT

- 1. School teachers are selected from the group of appointed and certified teachers in accordance with the ST recruitment criteria defined by separate rules.
- 2. ST conducting the practicum supervises and tutors the group:
 - a) 1–2 students in the main course (physical education) in primary and lower secondary schools and in the additional course (compensation and corrective gymnastics) in lower secondary schools. According to the Ministry of National Education document No. DFS-WM-MW-0902/069(7)/2011/8565 of July 12, 2011, the number of students under the ST supervision can be increased in reasonable individual cases.
 - b) 1–6 students in additional course (compensation and corrective gymnastics) in a primary school.
 - c) When assigning students to particular STs, students' preferences can be taken into consideration.
- 3. ST's duties:
 - a) Supervises and tutors the student who takes part in the teacher practicum at school.

- b) Allows the student to execute the practicum program tasks in an appropriate order, as well as monitors the quality.
- c) Stimulates the student to verify the knowledge and skills they have in creative lesson planning.
- d) Together with the student, determines the framework plan of work and accepts its record in the teacher practicum journal no later than on the third day of the practicum.
- e) Discusses the quality of particular tasks of the practicum with the student and the AT.
- f) After each day of classes, notes the remarks in a monitoring sheet of the practicum program.
- g) Is obliged to immediately inform AT in the case of a negligent fulfilment of teacher practicum tasks (being late, failing to meet the daily or weekly minimum time limits for being at school, deficiencies in the required practicum documentation, etc.).
- h) Decides on a final grade together with the AT.
- 4. ATs are selected from the group of research and education employees or education employees of the University in accordance with the AT recruitment criteria defined by separate rules.
- 5. The AT supervises and tutors a group of 6–15 students for the base course (physical education) and 14–22 for the additional course (compensation and corrective gymnastics).
- 6. AT's duties:
 - a) Is obliged to participate in a training on the supervision implementation method and duties resulting from the their part in the Project and to supervise the teacher practicum in primary and lower secondary schools held by University students listed in art 8 point 1.
 - b) Conducts supervision supervision means 'monitoring' or 'observing'; it constitutes a process of mutual learning and watching over the practicum, which leads to strengthening the professional development of a student (for the benefit of the pupils).
 - c) Discusses the relations that a student makes with pupils; develops their consciousness, and an individual style of pedagogical contact, and creating relationships with others.
 - d) Through contacts with students and with STs, an AT tries to reinforce the personal development processes of students, guides the creation of their own strategies for learning and extending their education, helps students synthetize the theoretical knowledge acquired during studies and use it in their own educational ways.

- e) Helps the student gain self-awareness and self-assessment of the knowledge in physical education methodology, solve the methodological and educational issues and difficulties, obtain the ability to develop their own concepts and independent work (setting individual goals and using selected teaching methods).
- f) Stimulates the student to develop the curiosity in learning their personality strengths and weaknesses (building an adequate self-esteem), and to gain the motivation to creative learning, and to take responsibility of their development and activity.
- g) The supervision includes at least 2 meetings of an AT, an ST and a student for the physical education and 1 meeting for the compensation and corrective gymnastics during the course of the practicum.
- h) The supervision should be preceded by the introductory meeting with students and teachers who tutor the students in a given school to present and discuss the principles and organization of the supervision.
- i) The supervision includes the inspection of classes or activities held by the student, and discussing it.
- j) The AT should assign at least two lesson periods to inspecting and discussing classes.
- k) The classes or activities should be discussed immediately after they are completed. In reasonable individual cases it can be postponed until the next day.
- I) The AT documents each session of supervision in the Practicum Program Monitoring Sheet. The AT writes down their remarks, the ST's remarks and student's remarks on the observed actions; gives suggestions on the further work, writes down the grades given by them, by the ST, as well as a student's self-assessment; during the last supervision the AT summarizes the student's work and determines the grade together with the ST.
- m) The final grade from each part of the teacher practicum should be determined a week after the end of the practicum at the latest.
- n) After grading the supervised part of the practicum, the AT immediately delivers the documentation to the Project office.
- 7. The final grade from each part of the teacher practicum is not just an average grade of all partial effects of completed tasks, but being a supporting grade, it should include guidelines for further work of the student and be helpful in achieving better results. The final grade is to stimulate and support the student's professional development and to diligently advise on the effects of their efforts: if during the practicum a student extends their knowledge and skills following the

NS's guidelines and the AT's suggestions received after inspections, then the final grade should be higher than average; and in the opposite situation, it should be lower.

8. The final practicum grade is a weighted average calculated by the following formula:

Final grade = $A \times 0.75 + B \times 0.25$ where:

- A the grade for the main course part of the practicum (physical education);
- B the grade for the additional course part of the practicum (compensation and corrective gymnastics).

The final grade can be satisfactory only if both elements, A and B, are at least satisfactory.

9. The final grade is assigned by the AT supervising the main course after taking into account the grade assigned by the AT supervising the additional course. The grade should be entered into the student's transcript, credit book and examination card on the dates appointed by the Dean of the Physical Education Department.

THE TERMS OF CONDUCTING AND PASSING THE PRACTICUM

- The teacher practicums implemented under the Project in primary and lower secondary schools are designed for the students taking 5 and 6 semester of fulltime or extramural studies at the University in academic years 2011/2012, 2012/2013, 2013/2014 with the exception of the students listed in § 8 point 1, items a–c.
 - a. Students who undergo their teacher practicum in primary and lower secondary schools in the period other than the one set in the curriculum can qualify for the Project only with the Project Manager approval.
 - b. Students who retake the teacher practicum can qualify for the Project only with the Project Manager approval.
 - c. Students of extramural studies cannot be admitted to the Project.
- 2. Students complete the program of consecutive teacher practicums in the order of education levels: first in a primary school, then in a lower secondary school.
- 3. In reasonable cases (short illness up to 3 days) the practicum can still be passed if the AT gives a positive opinion and the student makes up for the absences after the end of the practicum. The time and place of making up for the absences must be agreed with the AT.

- 4. A student who does not get a satisfactory grade from the teacher practicum held as part of the Project can retake the practicum within the deadline set by the Dean of the Physical Education Department and in accordance with the University Study Regulations.
- 5. An unjustified day long absence at the practicum results in failing the practicum.

§ 9

To pass the practicum, a student has to:

- 1. By the deadline set by the Dean, report to the Project office to collect the documents.
- 2. Before the practicum, report to the AT for an organizational meeting to discuss the detailed conditions of executing practicum tasks. Starting the practicum without participating in an organizational meeting is breaching the conditions of passing the practicum and results in an unsatisfactory grade (without checking the practicum documentation).
- 3. Meeting dates are announced each time before the start of the practicum on the Project webpage, on the "News" tab, as well as on the bulletin board in the Project office.
- 4. Send a detailed program to the AT for approval no later than three days after the beginning of the practicum.
- 5. Complete the practicum at the time and place designated by the University.
- 6. Fulfil all the practicum program tasks.
- 7. Fill the self-assessment card and write the practicum report (Your remarks on the practicum, the practicum tutor's grade and assessment, the student's self-evaluation).
- 8. Deliver the practicum journal to the AT on the third day after the end of the practicum at the latest.
- 9. Get a positive grade for the work and documentation from the ST and AT.

COSTS AND REMUNERATION

§ 10

1. The student bears the costs of meals, accommodation, and commuting related to completing the practicum away from home. The University does not refund the expenses incurred.

FINAL PROVISIONS

§ 11

1. These rules come into force on May 1, 2011, and are in effect throughout the whole Project course.

- 2. The rules apply in their full extent to the students who began their studies in the academic year 2009/2010, 2010/2011 and the students who will begin studies in the academic year 2011/2012.
- 3. Students who began studies before the academic year 2009/2010 complete their teaching practicum in accordance with the earlier rules and cannot be qualified to participate in the Project.
- 4. The leader reserves the right to decide in disputable issues and those not covered by the Rules.
- 5. The leader reserves the right to introduce changes in these Rules.
- 6. Information on changes in the Rules will be published on the Project website and will also be available in the Project office.

3.4. Rules of implementing teacher practicums in physical education

The Project defines in details the program and the rules of implementing teacher practicums. The tasks to be fulfilled by students during the practicum are also determined. Below, we present the practicum guidelines in force for students during the project implementation¹².

3.4.1. The teacher practicum program for primary schools

The goals of teacher practicums in primary schools pertained to four important aspects resulting from the student training program.

First of all, they were oriented to developing pragmatic competences connected to the improvement of the skills needed to project, plan, organize, and implement movement activities with children in primary schools, in both grades 1–3, and 4–6.

They focused on developing the students' knowledge about the functioning of the school as an institution, and the knowledge of teaching and educational programs implemented by the teaching staff, especially with respect to the duties of a physical education teacher.

¹² The rules of implementing teacher practicums excepted from: Lewandowski, Guła-Kubiszewska 2013b.

The practicum was to develop creative competences and a self -reflection in actions pertaining to the verification of the preparation for the teacher role in health, recreation, sport and movement behaviour aesthetics on the first two levels of education.

Students were also to familiarize themselves with the essentials and organizational solutions of introducing health prevention programs and health education content resulting from the core curriculum for early school education and grades 4–6 of primary schools.

PRACTICUM TASKS IN A PRIMARY SCHOOL:

- 1. School structure analysis:
 - a) conducting interviews with a school headmaster, physical education teachers (called Mentors) and the rest of the school staff about the school organizational structure as well as the rules and the character of teaching and educational cooperation;
 - b) participating in teaching staff meetings, self-study team meetings, and other meetings related to a social involvement at school.
- 2. Getting to know the school documentation with respect to: curricula and the school's teaching and educating work programs, physical education and health education curriculum, as well as other activities at school:
 - a) conducting a conversation with the headmaster on the implementation of the teaching and educational program, out-of-school grading system, course grading system, the possibilities of cooperation with parent council, and other local environment parties;
 - b) conducting an interview with a Mentor and a school doctor (or nurse) on the realization of physical education and health education programs and work plans in the school, as well as the assessment of pupils' health;
 - c) conducting an interview with a chosen teacher of early school education (grades 1–3) on the implementation of the teaching and educational work plan and program, with particular emphasis on the role and place of conducting movement activities;
 - d) conducting an interview with a chosen form master on the forms and methods of educational work, the rules of contact and cooperation with parents, etc.;
 - e) conducting an interview with a guidance counsellor on educational issues, cooperation with parents, forms of work, etc.;
 - f) getting familiar with the school documentation: teacher's notebook, student grade sheet, personal health sheet, as well as the documentation of a form master, a physical education teacher and course teachers;
 - g) analysis of the compatibility of course plans and programs with the school activity plan and program.

- 3. Conducting direct actions connected to programming and planning the methodological units on the first two levels of education with a particular focus on physical education:
 - a) inspection of movement activities (grades 1–3) and physical education classes (grades 4–6) implemented at school in accordance with a strategy of mixing of the physical education process (in-class and facultative systems) with after-school movement activities;
 - b) inspection of a form period and chosen course classes, including integrated skills in grades 1–3;
 - c) assisting the Mentor, conducting chosen lesson parts;
 - d) conducting movement classes in grades 1–3, physical education classes in grades 4–6, and after-school sports and recreation activities;
 - e) conducting a form period.
- 4. Identifying substantial characteristics of a pupil in psychomotor, cognitive, physical and mental area in primary school pupils:
 - a) analysis and assessment of psychomotor, cognitive, physical and mental development of pupils in grades 1–3 and 4–6 based on proprietary "Pedagogical diagnosis" projects;
 - b) conducting interviews with pupils to learn about their knowledge, interests, and attitudes towards physical culture;
 - c) analysing the documentation on the health and trends in psychophysical development of pupils (for a chosen form and a selected pupil).

THE DETAILED TASKS TO BE IMPLEMENTED DURING THE TEACHER PRACTICUM IN A PRIMARY SCHOOL IN PHYSICAL EDUCATION

90 hours is dedicated to carry out all the teacher practicum tasks in physical education. As part of this hour pool, students have to conduct different tasks included in the physical education process in primary schools. The tasks are divided into the research part, pertaining to an educational diagnosis and interview; the monitoring part, pertaining to inspecting lessons conducted by a school teacher who is a practicum tutor, other teachers, or students; and the practical part, consisting in assisting a teacher by way of conducting some parts of a lesson or conducting entire physical education classes or after-school activities unassistedly.

The detailed description of tasks to be implemented during teacher practicums in a primary school can be found in the teacher practicum journal for physical education. The scope of student tasks changed in the course of the project. The changes were the effect of observing the project implementation by journal authors and the project team members, and most of all they resulted from the feedback and suggestions from students, and school and academic teachers involved in the project implementation. The tasks to be implemented by students in the course of physical education practicum for the academic year 2013/2014 are listed below¹³; they can be treated as the final version reached in the course of the project execution.

EDUCATIONAL DIAGNOSIS (20 hours)

With a detailed description of the tasks and their scopes: individual diagnosis, group diagnosis, and environmental diagnosis. The tasks to fulfil are presented below.

INDIVIDUAL DIAGNOSIS in grades 1-3 (2 hours)

The research goal must be defined and a throughout analysis and assessment of the collected data carried out. The results and conclusions should be included in the practicum journal, with all documentation attached (surveys, interview cards, etc.). The scopes of individual and group diagnoses:

- physical development,
- fitness level or body efficiency,
- motor skills,
- knowledge,
- interests.

INDIVIDUAL DIAGNOSIS in grades 4-6 (5 hours)

The choice of tools and the scope of the diagnosis (methods and techniques of collecting data) should be different than in grades 1–3. The research goal must be defined and a throughout analysis and assessment of the collected data carried out. The results and conclusions should be included in the practicum journal, with all documentation attached (surveys, interview cards, etc.). The scopes of individual and group diagnoses:

- physical development,
- fitness level or body efficiency,
- motor skills,
- knowledge,
- interests in physical culture or attitudes towards physical culture,
- group student project: modification of a course grading system in physical education following up the feedback from pupils of the assessed class.

¹³ The detailed tasks to be implemented during the teacher practicum in physical education have been excepted from: Lewandowski, Guła-Kubiszewska 2013b.

GROUP DIAGNOSIS in grades 1-6 (1 hour)

Students determine the goal and method of research by themselves, conduct sociometric diagnosis and analyse the collected data.

ENVIRONMENTAL DIAGNOSIS (12 hours), divided into detailed tasks Base and organizational structure of the school (2 hours)

- 1. Get to know the school organization structure (scheme).
- 2. Number of physical education teachers and their qualifications (educational background, specialization level, etc.) as well as the number of other teaching and support staff.
- 3. The number of pupils at school, grades 1–3, 4–6 and the average number of pupils in class.
- 4. Methods of cooperation with local environment and parents.
- 5. Healthcare organization.
- 6. Psychological and educational care organization.
- 7. Number and principles of operation of self-study teams.
- 8. School base (number of buildings, classes, laboratories).

Program and plan of methodological and educational work (3 hours)

- 1. School program and work plan.
- 2. Curriculum for grades 1–3, with the focus on methods and forms of implementing movement classes (what curriculum integrated teaching is based on).
- 3. Curriculum in grades 4–6 (compulsory and optional classes).
- 4. The school's methodological and educational achievements.
- 5. Healthcare program (e.g. pro-health, preventive education, or health education).
- 6. General diagnosis of pupils' health condition (school nurse, school doctor).
- 7. Psychological and educational pupil support system (guidance counsellor, school psychologist).
- 8. After-school activities school club, extracurricular activities, etc.
- 9. Policy and conventions of contacting parents in grades 1–3 and 4–6 (conversation with form teachers).
- 10. Reports from teaching staff meetings and self-study teams (if such take place during the practicum).

School grading system (2 hours)

- 1. Evaluation system in grades 1–3 (descriptive grades).
- 2. Evaluation system in grades 4–6 (including behaviour grade).
- 3. Course grading system in grades 4-6 (including behaviour grade).

4. Students' feedback on criteria and physical education grading system (interview or survey a in randomly selected 4–6 grade).

School physical education curriculum (2 hours)

- 1. Physical education teaching curriculum implemented in the school (goals and tasks, author).
- 2. Grades 1–3 teacher cooperation with physical education teachers (forms of cooperation, further education, help, etc.).
- 3. Cooperation among physical education teachers.
- 4. Awareness of the goals and tasks of physical education among pupils (interview or survey in a randomly selected 4–6 grade).
- 5. The most popular methods and forms of work in movement classes in grades 1–3.
- 6. The most popular methods and forms of work in movement classes in grades 4–6.

Evaluation of conditions for conducting physical education classes (3 hours)

- 1. Base for conducting physical education classes (swimming pool, number of gyms, sports grounds, and other rooms designated for physical education, their state, suitability, equipment, dimensions, etc.).
- 2. Basic school gear (e.g. the number of balls for team games, including mini balls, bands, jumping ropes, cones, medicine balls, gym batons, etc.).
- 3. Basic team sport, track and field, and gymnastics equipment (basketball constructions, volleyball net and posts, horizontal and parallel bars, horse and other gymnastics equipment, starting blocks, etc.).
- 4. A number of practicing groups and the average number of pupils in a group during one period in grades 1–3 and 4–6.
- 5. Timetable analysis to rationally use the school base in physical education classes.
- 6. An access to school base and equipment for physical education classes in grades 1–3 and 4–6.
- 7. Professional qualifications of teachers conducting physical education classes (specialization level, years worked, courses completed, certificates, etc.).
- 8. An assessment of the state of the school base and equipment for physical education.

CLASS INSPECTION (22 hours)

22 or more class inspections, including at least:

- 2 period of movement classes in grades 1-3;
- 12 periods of physical education in grades 4–6;
- 1 form period;
- 1 period in grades 1-3;

- 1 period of other subjects in grades 4-6;
- 2 periods of after-school sports and recreational activities held as part of UKS or SKS (sports clubs).

INTERVIEWS

Student's goal is to determine the aim of the interview and questions. Answers and their assessment should be included in the practicum journal in the following manner: date, time, place, interview goal, who was interviewed (e.g. pupils from form 3A), questions and answers.

LESSON ASSISTING (12 hours)

Conducting chosen lesson parts (opening, main, or closing) under a teacher's supervision. Students have to create an outline (plan) of the chosen part of the lesson and discuss it with the teacher beforehand:

a minimum of 12 periods during which the student has to conduct at least:

- 4 opening lesson parts;
- 4 main lesson parts;
- 4 closing lesson parts (including compensation and corrective gymnastics).

CONDUCTING CLASSES (16 hours)

Physical education classes (movement classes in grades 1–3) may relate to such issues as:

- health, hygiene, and safety;
- aid, safety measures, and protection when performing exercises;
- organizing and running fun and games, exercises and physical activities;
- self-assessment and self-control of the body, its functions and movement abilities;
- rules and methods of developing condition and coordination abilities;
- rules and methods of teaching and developing sports techniques and tactics;
- a form period.

Each student has to conduct unassistedly the minimum of 16 classes, including at least:

- 1 period of movement class in grades 1-3;
- 1 form period;
- 3 periods in each of the following physical culture field (health, recreation, sport, movements aesthetics);
- 2 periods of after-school classes (if they are not conducted at school, PE classes should be conducted instead).

CONSULTATIONS WITH A SCHOOL OR ACADEMIC TEACHER (20 hours) One hour each day for discussing classes and checking the current documentation

3.4.2. The teacher practicum program for lower secondary schools

Teacher practicum goals for lower secondary schools

Practicum goals in lower secondary school focused on developing students' knowledge, experience and skills necessary to project, plan, organize, and implement physical education process with pupils in grades 1–3 of lower secondary schools. An important goal was to develop students' educational self-awareness as well as a positive attitude towards youths, and the demeanor of a reflective practitioner, creative in improving their own cognitive, emotional, and psychomotor sphere.

PRACTICUM TASKS IN LOWER SECONDARY SCHOOLS

During teacher practicums, students fulfilled the tasks which were strictly connected to school work and carrying out the process of physical education: organization of school work on a macro scale (knowledge managing institution) and a micro scale (the perspective of teachers' subject work at school), programming and documenting teaching and educational activities and core activities – educational effects of pupil's work.

- I. Get to know the school organization structure:
 - 1) conducting interviews with a school headmaster, physical education teachers and the rest of the school staff about the school organizational structure as well as the rules and the character of teaching and educational cooperation;
 - 2) participating in teaching staff meetings and self-study teams, as well as other meetings connected to school life and social activity for the school's benefit.
- II. Familiarize with the general curriculum and the school's teaching and educating work program, physical education and health education curriculum, as well as other school documentation:
 - conducting a conversation with the headmaster on the implementation of the teaching and educational program, out-of-school grading system, course grading system, the possibilities of cooperation with parent council, and other local environment parties;
 - 2) conducting an interview with a physical education teacher on the realization of programs and work plans for physical education and pro-health education;
 - 3) conducting an interview with a pro-health activity coordinator at school (a chosen psychologist or health promoter) on the implementation of the teaching and educational work plan and program, with particular emphasis on the role and place of conducting movement activities;
 - 4) conducting an interview with a healthcare representative at school (a school nurse or doctor) on the implementation of health education program, and getting familiar with the implementation of interdisciplinary tracks;

- 5) recognizing the scope and area of educational activities at school, talking to a chosen form master and guidance counsellor on methods and form of cooperation between school and parents, etc.;
- 6) getting familiar with the school documentation: teacher's notebook, student grade sheet, personal health sheet, as well as the documentation of a form master, a physical education teacher and course teachers;
- III. Verify one's own pragmatic competences in planning, organizing, and implementing classes on the third level of education, with a particular focus on physical education:
 - 1) an inspection of physical education classes, after-school movement activities, form period, and other course classes, including any interdisciplinary tracks carried out at school;
 - 2) conducting physical education classes and after-school sports and recreation activities;
 - 3) conducting a form period;
 - 4) observing the behaviour of pupils and groups of pupils during classes and recesses.
- IV. Identify the substantial characteristics of lower secondary school pupils (psychomotor, cognitive, physical, and mental area):
 - observing and analysing the behaviour of chosen pupils, and an entire class during different classes and after-school activities, together with analysing the documentation on the health and psychophysical development of a chosen class and a pupil;
 - 2) conducting conversations and interviews with pupils about their knowledge, interests, and attitudes towards physical culture.

SPECIFIC TASKS TO IMPLEMENT DURING TEACHER PRACTICUMS IN A LOWER SECONDARY SCHOOL

Seventy hours are dedicated to carry out all the teacher practicum tasks in physical education. The structure of selecting the curriculum content to implement during lower secondary school practicums is a result of an established scheme to differentiate tasks for students in a physical education process in primary schools. The tasks in the practicum journal¹⁴ have been divided into three parts: the research part – pertaining mainly to an educational diagnosis, and observations using questionnaires; the

¹⁴ The detailed tasks to be implemented during the teacher practicum in physical education have been excepted from: Lewandowski, Guła-Kubiszewska 2013a.

monitoring part – consisting in inspecting classes conducted by a Mentor (a physical education teacher), other teachers, or students; and the practical part – coming down to conducting physical education classes or after-school activities unassistedly, and systematically analysing (and documenting) them.

The detailed description of tasks to be implemented during teacher practicums in a lower secondary school can be found in the teacher practicum journal for physical education. The scope of student tasks changed in the course of the project. The changes were the effect of observing the project implementation by journal authors and the project team members, and most of all they resulted from the feedback and suggestions from students, and school and academic teachers involved in the project implementation. The tasks to be implemented by students in the course of physical education practicum for the academic year 2013/2014 are listed below¹⁵; they can be treated as the final version reached in the course of the project execution.

EDUCATIONAL DIAGNOSIS (16 hours)

With a detailed description of the tasks and their scopes: individual diagnosis, group diagnosis, and environmental diagnosis:

INDIVIDUAL DIAGNOSIS (5 hours)

The goal of the research conducted by the student must be defined and a throughout analysis and assessment of the collected data carried out. The collected results should be subject to quantitative and qualitative analysis, and the research results should be used as predictive measures in a given class. All the results should be included in the practicum journal, with all comprehensive documentation on the topic attached (surveys, interview cards, etc.).

The scopes of individual and group diagnoses:

- physical development,
- fitness level or body efficiency,
- motor skills,
- knowledge,
- interests,
- individual student project a modification of physical education teaching curriculum by a mixed strategy, including the diagnostic results for a chosen class.

GROUP DIAGNOSIS IN A CHOSEN CLASS (1 hour)

The student's task is to determine the goal and scope for the research being conducted, and the proper choice of diagnostic methods (sociometric techniques) for the assessment

¹⁵ As presented in: Lewandowski, Guła-Kubiszewska 2013a.

of group dynamics. The student should set the obtained results together synthetically to portray the class, as well as draw conclusions and guidelines for working with a given group of pupils.

ENVIRONMENTAL DIAGNOSIS (10 hours), divided into detailed tasks Base and organizational structure of the school (2 hours)

- 1. Education profiles, specializations, class types, etc.
- 2. The number of pupils at school in grades 1–3 and the average number of pupils in class.
- 3. Methods of cooperation with local environment and parents.
- 4. School base (number of specialist laboratories).

Program and plan of methodological and educational work (2 hours)

1. Curriculum for grades 1–3, with the focus on strategy of mixed implementation of school physical education.

Healthcare program (e.g. pro-health, preventive education, or health education).

- 2. After-school activities.
- 3. Reports from teaching staff meetings and self-study teams (if such take place during the practicum).

School grading system (2 hours)

- 1. Course grading system the system and the (detailed) criteria of grading physical education students using mixed strategy.
- 2. Students' feedback on criteria and physical education grading system (interview or survey a in randomly selected class).

School physical education curriculum (2 hours)

- 1. Physical education teaching curriculum implemented in a chosen class (goals and tasks, author).
- 2. The most popular methods and forms of work in physical education classes.
- 3. Awareness of the goals and tasks of physical education among pupils (interview or survey in a randomly selected class).

Evaluation of conditions for conducting physical education classes (2 hours)

- 1. A number of practicing groups and the average number of pupils in a group during one period.
- 2. Timetable analysis to rationally use the school base in physical education classes.
- 3. An assessment of the state of the school base and equipment for physical education.

STUDENT RESEARCH WORK (2 hours)

The goal of student research work is to improve students' abilities in using chosen methods, techniques, and research tools. The student is to conduct research work by way of a diagnostic survey, and using two techniques.

STRUCTURALIZED OBSERVATION TECHNIQUE:

- preliminary knowledge of the observation subject;
- clear defining of the issue and the observation goal;
- learning more about the observation subject using open observation and other cognitive procedures;
- developing the detailed research concept, categorizing the issues, elaboration.

The observation object can be chosen by the student from the list of goals below:

- 1. observation of motor skills of a chosen pupil;
- 2. observation of a cooperation among a group of pupils;
- 3. observation of non-verbal behaviour in a teacher during classes;
- 4. observation of how pupils spend their recesses;
- 5. observation of (own goal).

SURVEY TECHNIQUE

It is a technique of gathering information by filing special questionnaires (typically by the research subjects) which are usually highly standardized, more often than not without the interviewer's presence. It usually pertains to a narrow issue or a bigger problem divided into several smaller subproblems.

The research procedure consists in student defining the aim of the research, survey questions, determining research area or sample, tools, and finally in conducting the research. The collected results should be analysed and conclusions drawn for further educational work.

CLASS INSPECTIONS (12 hours)

Conducting 12 or more class inspections, including at least:

- 8 periods of physical education classes;
- 1 form period;
- 1 period of other subjects;
- 2 periods of after-school sports and recreational activities held as part of UKS or SKS (sports clubs).

Each class inspection should be announced and settled with school headmaster and the teacher conducting the class.

CONDUCTING CLASSES (25 hours)

Conducting unassistedly the minimum of 25 classes, including at least:

- 22 periods of physical education classes;
- 2 periods of after-school activities;
- 1 form period.

Using the following methods in the conducted classes:

- reproductive,
- giving independence,
- creative,
- intensifying.

CONSULTATIONS WITH A SCHOOL OR ACADEMIC TEACHER (15 hours) One hour each day for discussing classes and checking the current documentation.

3.5. Rules of implementing teacher practicums in compensation and corrective gymnastics

In the case of implementation of teacher practicums in compensation and corrective gymnastics, as it took place in the case of the physical education practicums, students received practicum journals, in which goals, tasks and detailed practicum tasks were listed. Below are the goals and tasks in compensation and corrective gymnastics for primary and lower secondary schools.

3.5.1. The teacher practicum program for primary schools¹⁶

For implementing teacher practicums in compensation and corrective gymnastics, the following two goals were assumed:

- gaining knowledge, experience, and skills essential to designing, planning, organizing, and implementing compensation and corrective gymnastics in children in grades 1–3 and 4–6 of primary schools;
- developing a pro-health consciousness in students as well as in children and youths.

The implementation of four tasks was assumed:

- 1. Get to know the school organization structure.
- 2. Familiarize with the general physical education and health education curriculum, as well as other school documentation.

¹⁶ The goals and tasks excepted from: Bieć, Lewandowski, Guła-Kubiszewska 2013.

- 3. Practically familiarize with planning, organizing, and implementing classes on the first two levels of education, with a particular focus on compensation and corrective gymnastics.
- 4. Recognize any locomotor system dysfunctions in children and youths in primary schools.

The first task involved: interviewing a headmaster, physical education teachers and the remaining staff members on the school organizational structure in promoting healthy lifestyle, and conducting the discussion with the headmaster on the execution of a pro-health program, cooperation with parent council, and local environment in relation to this program.

Students were also supposed to conduct an interview with the teacher conducting compensation and corrective gymnastics on the realization of programs and work plans for a pro-health education, and with a school nurse (or a doctor) on the execution of compensation and corrective gymnastics and pro-health education at school, as well as on the assessment of pupils' health. Students were also obliged to familiarize with the school's documentation, such as personal health sheets, and the form master's and physical education teacher's documentation.

The third task included: inspecting the compensation and corrective gymnastics classes; assisting the physical education teacher, conducting fragments of compensation and corrective gymnastics lessons; and conducting corrective classes in grades 1–3 and compensation and corrective gymnastics during physical education classes in grades 4–6.

As part of the last task, students were supposed to assess a body posture, perform functional, and motor tests, analyse the documentation on health and physical development of a chosen class and a pupil; analyse and assess the changes in body postures and physical development of pupils in grades 1-3 and 4-6.

3.5.2. The teacher practicum program for lower secondary schools¹⁷

In lower secondary schools, 3 goals were set for compensation and corrective gymnastics practicums:

 gaining knowledge, experience, and skills essential to designing, planning, organizing, and implementing movement classes with pupils including elements of compensation and corrective gymnastics in grades 1–3 and 4–6 of lower secondary schools;

¹⁷ The goals and tasks excepted from: Bieć, Lewandowski 2013.

- developing a pro-health consciousness in students and a positive attitude towards children and youths;
- improving student's cognitive, emotional and psychomotor sphere.

Three practicum tasks in lower secondary schools were also defined:

- 1. Familiarize with the general physical education curriculum.
- 2. Practically familiarize with planning, organizing, and implementing classes on the third level of education, with a particular focus on compensation and corrective gymnastics.
- 3. Recognize any locomotor system dysfunctions in youths in lower secondary schools.

For the first task, students were supposed to conduct an interview with a physical education teacher on the realization of programs and work plans for physical education and health education, including compensation and corrective gymnastics, with a healthcare representative at school (a school nurse or doctor) on the execution of health education and on the assessment of pupils' health. Students were also obliged to familiarize with the school's documentation, such as personal health sheets, and the form master's and physical education teacher's documentation.

The second tasks included an inspection of physical education classes with the elements of compensation and corrective gymnastics, assisting the physical education teacher or conducting fragments of classes devoted to compensation and corrective gymnastics, and conducting physical education classes with compensation and corrective gymnastics elements.

The third task involved assessing a body posture, performing functional, and motor tests, analysing the documentation on health and physical development of a chosen class and a chosen pupil; analysing and assessing the changes in body postures and physical development of pupils in grades 1–3.

4. The issue of teacher practicums in academic research

A teacher practicum¹⁸ is one of the most important, if not the most important, elements of future teachers' education (for example Conant 1963; Johnson 1982; Holmes Group 1986). Although there are voices that undermine the sense of the practicums as such (see the discussion in the *Journal of Physical Education, Recreation & Dance* 2008, Should apprenticeship...), but this controversy reveals other, alternative propositions of gaining competences necessary for a teacher's work. Nevertheless, most researches agree that practicums are currently the most effective form of education for future graduates. Practicums can be especially helpful while preparing future teachers for the initial stage of working at school (MacPhail, Tannehill, Karp 2013), i.e. to the so called initial¹⁹ teacher training (OECD 2005).

Most probably one of the first theoreticians of education who noticed the importance of teacher practicums was John Dewey (as maintained by some scholars, such as Duffield 2006, or Dunning, Meegan, Woods, Belton 2011), however, since the teacher practicum had been present in teacher training curriculum decades before Dewey's works in many countries (e.g. in Poland), we can assume that Dewey stressed the theoretical importance of what had practically been implemented years earlier. In *Democracy and Education* (1933/1998), Dewey states that people create knowledge and attach the importance to such knowledge on the basis of their own experience and ideas. Such statements are connected with the constructivist pedagogy, assuming that learning (here learning to become a teacher) is a process at the same time social and cultural in which there are relations and cooperation between learners and those who know more than the learners (e.g. Biggs 1996; Kuiper, Volman, Terwel 2009; MacPhail,

¹⁸ The English language knows several names for practicums. It causes some problems, such as with browsing journal databases or searching publications on practicums. They are also referred to as: *hands-on experience*, *internship*, *clinics*, *labs* or *fieldwork* (Sherrill 2006).

¹⁹ Initial teacher education – a preliminary teacher education phase selected by OECD, Organization for Economic Co-operation and Development.

Tannehill, Karp 2013; Pontecorvo 2007). Learning students create relations with more experienced people during the practicums. In an actual and real school environment, more experienced and knowledgeable school teachers meet with students, soon-to-be teachers.

Teacher practicums allow candidates for teachers to acquire competences in a real environment, such as the one in which they will work in the future. Apart from competences which should be acquired in the process of education, future teachers can understand how and why pupils learn at school (Dunning, Meegan, Woods, Belton 2011). The impact of practicums on teacher training, here also on the physical education teacher training, is huge, but what is worth noting, it also raises the most controversy (see e.g. Dunning, Meegan, Woods, Belton 2011; Mitchell, Clarke, Nuttall 2007; Woolfolk-Hoy 2000). Here are a few examples of the controversial issues: where the practicum takes place, the role of supervisors appointed by a university which educates future teachers to oversee the students, the practicum program, teaching priorities within the practicum, the choice of school teachers who can/should take care of the students, and what type of a teacher should be the school teacher tutoring the students.

The teacher practicum comes down to the meeting and diffusion of two worlds: a student's academic world and the real school reality which the school teacher comes from. Therefore, the practicum time is a "difficult time" (Beck, Kosnik 2000) because it tries to connect two completely different worlds (Dunning, Meegan, Woods, Belton 2011). On one hand it is a time of challenges and responsibilities for the university preparing the practicum, and on the other, it is the most important time for the future teacher. It is through the practicum that student can learn from experience in a natural school environment.

So what should be done to take the best of the teacher practicum time, that compulsory element of teacher training? First of all, the rules of cooperation between three parties creating the triad during the practicum, i.e. a student, a school teacher, and an academic supervisor, should be properly defined so that an experience-oriented student will be well prepared by their native institution (a supervisor) to transform their university knowledge to the school environment under the supervision of the school teacher (Hill, Brodin 2004). As McDiarmin (1990) stresses, an effective practicum is a result of a cooperation of an academic supervisor and a school teacher. If this cooperation challenges the student in terms of their skills and beliefs, then the practice is effective.

It is important to stress that the literature knows researchers claiming that academic supervisor is unnecessary (Bowman 1979), however most of the researchers will agree that a supervisor is an important and essential element of the triad mentioned above (Slick 1997). Some authors try to define the role of a supervisor. They can be an inspector, master, coach, mentor, or a consultant (Acheson, Gall 1987). It is important to stress that an academic supervisor encounters problems in the school where they supervise the student. After all, it is the headmaster and teachers who are in power in the school. The supervisor is just a guest, likewise the student. It puts them in an unusual position – fighting or negotiating for power (Britzman 1991) to ensure a proper position to evaluate and control the student (but also the school teacher). So preparing an effective practicum requires determining the roles and tasks of an academic supervisor.

Equally important in this triad is the school teacher²⁰.

Choosing the right school is another issue. Generally, and not just in Poland, students are put in schools which are convenient for the university (Larson 2005). Schools are chosen without taking into account the most effective learning by students (Zeichner 1992). So if the geographical choice of schools does not take the quality of training offered to students into consideration, it might be good to prepare schools taking part in practicums in such a way that they could offer similar training level. It would satisfy the postulate of equal practicum training proclaimed by Hill and Brodin (2004).

An important element in programming teacher practicums is to take educational habits of school teachers and academic supervisors into consideration (MacPhail, Tannehill, Karp 2013), connecting the sense of their own agency (an element of the social-cognitive theory of Bandura 1997) with the effects of practicum training (e.g. Gurvitch and Metzler 2009), among many others. In fact each element connected with a teaching effectiveness (student achievements, novelty level, teacher enthusiasm, involvement in teaching, etc.) can be viewed in the context of teacher practicum programming.

4.1. The issue of teacher practicums in academic research in Poland

Recently, teacher practicums take an important place in the teacher training system. The indication of the importance of this issue are public discussions organized at different science and methodological forums, such as the ones that took place in 2012: The Scientific Seminar "Model teacher practicum program in educating future teachers" (see www.krakow.janski.edu.pl); The National Scientific Conference "Teacher practicums – an important link in the process of training early school education and kindergarten teachers" (see www.pwsz.wloclawek.pl), or The Theoretical and Methodological Conference "Professional practicums – professional teachers. How to

²⁰ A school teacher responsible for a student during a practicum is sometimes called a *cooperating teacher*.

improve the teacher practicum quality" (see www.konin.edu.pl). The scientific papers which appeared as a result of these conferences can be classified into two trends (Sendłak 2013). The first one – theoretical studies connected to practical vocational training in the process of training in a university, descriptions of programs and the process of the teacher practicum at particular universities. The second one – designing proprietary model solutions by authors based on their teacher practicum experiences.

The first trend is represented by the publications of Janikowska-Siatka (2006), and Umiastowska, Makris (2003). In both cases, the issues of teacher practicum program characteristics are analysed, especially teacher practicum goals and tasks of both students and of the practicum tutor, as well as the way the practicums are organized and implemented in specific universities. The practicum management is often criticized. For example, Michalski (2004) criticizes the academic practicum program because of its too general character, little precision in formulating tasks, fragmented records (inability to develop a methodical diversity by the students, schematic thinking, and widespread copying of the same methods, forms and means). In another publication, Zdrojewska-Bielawska (2004) stresses an inappropriately low number of hours in the practicum program scheduled for the practicum, for conducting classes unassistedly (20 hours), and for inspections (20 hours), too little time to acquire educational skills, i.e. controlling the group. According to the author, this approach harms especially those students who plan their future at school. Janowicz (2004) focuses on the teacher's role, the necessity of preparing for the classes, deepening knowledge to avoid repeating the same exercises, and most of all, he believes that the harder the work conditions are for a young teacher, the better for them. He believes that obstacles and complications not only strengthen the character, but also improve creativity and independence of a teacher already at the very beginning of the teacher's career; he names the tasks for new teachers, not only those who complete practicums.

Guła-Kubiszewska and Lewandowski M. (2005) conducted a survey among the students of the University School of Physical Education in Wrocław completing teacher practicums in 2004 and 2005 on all the levels of school education. They drew the conclusion that there is a disturbing difference between the grade given to a student by a school teacher and a didactic tutor at the university. They also noticed that there are no statistically important differences between final grades given by a teacher for theoretical and practical preparation, and that school teachers often neglect to verify the accuracy of the records kept in the practicum journal, and sometimes, despite the apparent gaps and mistakes noted by an academic teacher, they assign the student a high grade for the documentation and theoretical preparation.

In further surveys Guła-Kubiszewska and Lewandowski (2008) analyse and evaluate the teacher training program at the University School of Physical Education in Wrocław. The Authors point out the lack of integration in the physical education teacher training program and insufficient use of teacher practicums in this process. The current curriculum has not introduced crucial quality changes in the process of preparing future physical education teachers for the teaching profession. The training is more like preparing for a physical exercise instructor than for the guide of the human body culture.

For comparison purposes, the authors describe models from other European countries in the development of professional competences (Dutch, English, French, and German).

Woltman (2009) believes that a good professional start is a result of a diligent practical preparation of a student by way of a practicum well-prepared by the university. Woltman also claims that an effective teacher practicum where the student has enough time to gain valuable experience and to watch the work of a creative and competent teacher (a mentor) helps shorten the period of young teachers' adaptation to work.

Other research showing the issue of practicum effectiveness, their roles and functions are empirical works, based on opinions of students and teachers (tutors and headmasters). The authors of these works look for guidelines on how to modify teacher practicum programs.

There are also publications and research papers pertaining to physical education teacher practicums. For example Madejski (2008) notes that 67% of the students of the University of Physical Education in Kraków state that teacher practicums prepare to the profession well and that most of the students (71.8%) positively evaluate their practicum system. Koszczyc, Skarul and Wójcik-Grzyb (2003) note that 71% students of the University School of Physical Education in Wrocław highly rated their own preparation for work after having completed the practicums in lower secondary schools. For comparison, similar opinion is held by 61,4% students of The Long distance Faculty of Physical Education in Biała Podlaska (Cieśliński, 2007). Moreover, students from Biała Podlaska noted most highly the implementation (12%) and evaluative (8.8%) function of teacher practicums. The benefits of cognitive (2.5%), shaping (1.3%) and integrative (1.3%) functions of the practicums received the worst rates.

In the research by Kosiba and Madejski (2009), 62% of students positively rated the implementation of tasks by teachers (tutors). The rest of the surveyed students did not see any positive aspects of having a mentor and 18% of them claimed that the tutors did not meet their expectations. We saw the reasons of the dissatisfaction in teacher tutor personality types – too passive and liberal, or simply using the students.

Some research analysed the school teachers' attitude towards practicums. For example, in Skibniewski (2011), teachers evaluated the competences of the students of

the University of Physical Education in Warsaw. Using the scale from 1 to 5, they rated highest the moral (3.8) and communicative (3.64) competences. The lowest grades were given to creative (3.23), i.e. nonstandard activities, or creative problem solving methods, as well as information technology and media related competences (2.9). Referring to another Skibniewski's research paper (2008) on teaching competences, it is worth quoting the evaluation results of the influence of teaching competences as seen by the students. In their opinion, the practicums influence the cooperation (4.10) and communicative competences (3.54) the most, and creative (3.20), information technology (3.15), and moral (3.10) the least. Based on information collected, the author called for improving the effectiveness of the teacher practicums and student training process, especially in creative and information technology competences. According to Butna's research (2003), during assistant practicums students are assessed most poorly for their knowledge of physical culture topics and for problem solving and group controlling skills. During subject matter and methodology practicums, keeping documentation systematically, methodological preparation, and ability to conduct other classes (e.g. a form period) were among the lowest graded. For continuous practicums, keeping documentation systematically, and methodological preparation are graded the lowest. The author notes that expectations of teachers grow with each practicum, especially when it comes to the methodological preparation. The painful fact is that the tutor evaluates the methodological preparation only through conducting classes, and without assessing such elements as formulating the topic, or the particular tasks. Warchoł and Momola (2008) conducted a survey among the students of the Public Higher Vocational School in Krosno to compare the assumed and real functions of teacher practicums. 85.1% declared conducting the number of class inspections as per the program; 61.7% students kept the documentation up to date; 48.9% conducted physical education classes without a written preparation.

Krzak and Kumala (2011) analysed in their diagnosis which of the tasks are indeed fulfilled by the Wrocław University School of Physical Education students, and which are faked. 94% students declared conducting the number of class inspections as per the program; 64% students kept the documentation up to date; 83% students conducted physical education classes without a written preparation. The authors undermine the honestly and reliability of the tutors as the answers of the surveyed subjects imply that 36% signed the documentation, including the outlines, *in blanco*. The authors believe that such an unreliable attitude of tutors diminishes the quality and efficiency of teacher practicums. They add that the traditional practicum program should be transformed. They suggest implementing an academic teacher supervised practicum, increase the tutors' control over the students, and make the tutors more rigorous.

The research conducted just before and during the implementation of the New Quality of Teacher Practicums project (Kübler, Wójcik-Grzyb, Guła-Kubiszewska,

Starościak 2011; Wójcik-Grzyb, Kübler, Starościak, Guła-Kubiszewska 2009; Wójcik-Grzyb, Kübler, Starościak, Guła-Kubiszewska 2011; Kübler, Wójcik-Grzyb, Guła-Kubiszewska, Starościak 2013) also suggested that the students most often fulfilled the tasks connected to preparing pupils to taking part in recreational activities (skill range 65%, knowledge 55%). The skill tasks usually meant practicing technical elements of team games (87.8%) and hardly ever to arrange leisure time (3.3%). The Authors stress that a pupil of this level should be prepared to arrange organized leisure, so the proportions should be inverted.

Students realized the tasks developing the pupils competences in aesthetic behaviour (mostly gymnastic skills – 66.8%, while independent planning and presenting the independence in planning and demonstrating gymnastic and dance arrangements – 11.8%.

Studies on quality (Starościak, Lewandowski, Guła-Kubiszewska, Czyż 2013; Starościak, Guła-Kubiszewska, Czyż, Lewandowski 2014) and work on the modernization of the program and forms of teacher practicum implementation connected with them started at the University School of Physical Education in Wrocław in 2005. As a result the steps were taken to modernize the tasks and goals of the practicums. Teacher practicum journals, specifically the ones designed for each education level, in which students documented their school work were also upgraded. The breakthrough moment in work of the team working on teacher practicum programs at the University School of Physical Education in Wrocław was the developing the *New Quality of Teacher Practicums* project, which was granted a subsidy as part of the contest 6/POKL/3.3.2/2009. Having received the money allowed us to conduct the school teacher tutor training and to train academic teachers who were to be prepared for monitoring and supervision.

After the practicums in primary schools, students evaluated the practicum journal worse than teachers did, and students evaluated the journal worse than the practicum program; 75% of students assessed the program positively (13% very highly) and only around 10% did not accept the new practicum program.

In primary schools, more than a half of students accept the implementation of the new practicum program. The implementation of the practicum program in the lower secondary school is not accepted mostly by female students.

During the practicum effectiveness research, some specific suggestions appear. For example, in Chollek research (2008), students would like to participate in more classes (50%). 10.8% of those under Cieśliński (2008) research suggest longer practicums. Other ideas include: limiting the documentation (24.7%), or changing when the practicums are supposed to be completed (6.3%).

5. Evaluation of practicum effectiveness in teacher education

As part of the evaluation of practicum effectiveness, the authors conducted some research. Firstly, the results of survey polls among students, school teachers and supervisors (academic teachers) were analysed. Secondly, the authors conducted knowledge tests both at the beginning and at the end of each practicum. This allowed to verify if teacher practicums let students acquire new knowledge.

5.1. Evaluation surveys

Survey goal

The cognitive goal of the survey was to collect the opinions of students, school teachers and academic teachers engaged in the practicums about the physical education and compensation and corrective gymnastics taking place in primary schools, and compare them against the opinions collected after the practicums in lower secondary schools. The practicums were carried out for three consecutive years, students in the academic years 2011/2012, 2012/2013 and 2013/2014 as part of the program the *New Quality of Teacher Practicums*.

The practical goal of the research was to analyse the collected feedback of the respondents to provide input for introducing changes in the practicum program, journals, and tools used for monitoring the course of practicums.

Survey queries:

1. What is the opinion of the surveyed students, school teachers and academic teachers with respect to practicum programs and journals used for physical education and compensation and corrective gymnastics, as well as to practicum monitoring sheets in the primary school and lower secondary school level?

- 2. How do the students of particular years rate the practicum programs, journals, and monitoring tools?
- 3. What are the opinions of school and academic teachers with respect to practicum programs, journals, and monitoring tools in subsequent years?

The characteristics of the researched group

The research covered students participating in teacher practicums in years 2011–2014, school teachers acting as practicum tutors, and academic teachers acting as practicum supervisors. Tables 5.1 and 5.2 show the detailed number of people in individual groups in subsequent years divided by gender.

The study concerning teacher practicums in primary schools

In 2011, a study was conducted on students who completed teacher practicums in primary schools. The study covered 178 students taking part in the practicums (all the students), including 93 men and 85 women; 79 school teachers, including 30 men and 49 women; and 32 academic teachers, including 16 men and 16 women. The gender structure in the group was as follows: 139 men and 150 women examined.

In 2012, a study was conducted on students who completed teacher practicums in primary schools. The study covered 186 students taking part in the practicums (all the students), including 97 men and 89 women; 103 school teachers, including 36 men and 67 women; and 31 academic teachers, including 15 men and 16 women. The gender structure in the group was as follows: 148 men and 172 women examined.

In 2013, a study was conducted on students who completed teacher practicums in primary schools. The study covered 201 students taking part in the practicums (all the students), including 116 men and 85 women; 106 school teachers, including 40 men and 66 women; and 31 academic teachers, including 13 men and 18 women. The gender structure in the group was as follows: 169 men and 169 women examined.

Among the academic teachers, there were 10 those who supervised compensation and corrective gymnastics practicums, and 21 those who supervised physical education practicums.

In 2012, a study was conducted on students who completed teacher practicums in lower secondary schools. The study covered 192 students taking part in the practicums, including 107 men and 85 women; 85 school teachers, including 48 men and 37 women; and 35 academic teachers, including 16 men and 19 women. The gender structure in the group was as follows: 171 men and 141 women examined.

In 2013, a study was conducted on students who completed teacher practicums in lower secondary schools. The study covered 186 students taking part in the practicums, including 99 men and 87 women; 91 school teachers, including 45 men and 46 women; Table 5.1. Students, and school and academic teachers taking part in the execution of teacher practicums held as part of the *New Quality of Teacher Practicums* project in years 2011–2013 in primary schools [PS] and in years 2012–2014 in lower secondary schools [LSS]

Group	Gender	Academic year 2011/2012		Academic year 2012/2013		Academic year 2013/2014		Primary school practicums	Lower secondary school
		PS	LSS	PS	LSS	PS	LSS	2011–2013	practicums 2013-2014
Students	М	93	107	97	99	116	110	306	316
	F	85	85	89	87	85	79	259	251
	Sum	178	192	186	186	201	189	565	567
School	М	30	48	36	45	40	50	106*	143*
teachers	F	49	37	67	46	66	47	182*	130*
	Sum	79	85	103	91	106	97	288*	273*
Academic	М	16	16	15	15	13	13	44*	44*
teachers	F	16	19	16	18	18	18	50*	55*
	Sum	32	35	31	34	31	31	94*	100*
All	М	139	171	148	159	169	173	456	503
	F	150	141	172	151	169	144	491	436
	Sum	289	312	320	311	338	317	947	940

* Usually, the group of primary and lower secondary school teachers means the same people, employed in a given institution. The changes within those groups may be a result of hiring rotation, retirements, health leaves, or even death in one case. Primary school teachers acting as practicum tutors were mentors during all the three practicums, as was the case with the lower secondary school teachers. The hiring rotation is a result of two factors: new institutions joining the project in subsequent years, and natural staff rotation. The academic teacher group had the highest retention rate; the minimal composition changes resulted from using health leaves by some group members. This is why the numbers of school and academic teachers given in the last two columns of Table 5.1 should be treated rather as a number of the gathered evaluation surveys, and not as the number of people participating in the project.

and 32 academic teachers, including 17 men and 17 women. The gender structure in the group was as follows: 161 men and 150 women examined.

In 2014, a study was conducted on students who completed teacher practicums in lower secondary schools. The study covered 189 students taking part in the practicums, including 110 men and 79 women; 97 school teachers, including 50 men and 47 women; and 31 academic teachers, including 13 men and 18 women. The gender structure in the group was as follows: 173 men and 144 women examined.

Among the academic teachers, there were 9 those who supervised compensation and corrective gymnastics practicums, and 21 those who supervised physical education practicums.

The student group consisted of three subsequent years who took part in the teacher practicums in the academic years 2011/2012, 2012/2013, and 2013/2014.

According to the detailed syllabus of activities for physical education specialization on the full-time studies of the first degree, teacher practicums take place during the 5th semester in primary schools, and during the 6th semester in lower secondary schools. In the analysis presented below, opinions of students from different years gathered after completion of each practicum were taken into account. The number of people in individual groups is worth mentioning. During the practicum, the number of students in each group for each year may vary, as it results from unexpected circumstances, such as dean's leave, students leaving for foreign practicums, or interrupting and resuming studies for other reasons.

The used research method, research tools and techniques

In the conducted study, a diagnostic survey method (Pilch, Bauman 2010) was applied, with the use of questionnaires. Two proprietary survey questionnaires were used. The questionnaires used consisted of two parts, the first part was a short characteristics, and the second part included ten questions directed to respondents. In the characteristics, respondents were asked to provide some information on their: age, gender, and role in the project. The respondents gave their age in years, and marked check boxes for selecting their gender and roles (student, school teacher, or academic teacher). The research part consisted of 10 questions including 5 closed questions in which respondents were asked to rate their answer in a five-point Likert scale (where: 5 - very highly rated, 4 - highly rated, 3 - I'm not sure / I have no opinion, 2 - low rated, 1 - very low rated), and 5 open questions. Questions 1 and 2 referred to student's opinions on practicum programs for physical education in primary and lower secondary schools, and possible suggestions to improve those programs, questions 3 and 4 referred to the opinions on the journal used during the physical education practicums, and possible suggestions to improve the journals. Questions 5 and 6, and 7 and 8 had a similar design and referred to programs and journals for compensation and corrective gymnastics in primary and lower secondary schools. Questions 9 and 10 asked for opinions on the monitoring sheets used during the student supervision process and possible suggestions to improve the sheets. The survey questionnaires used are presented in Appendices 2 and 3 to this monograph.

The analyses were carried out in STATISTICA 9.1²¹ statistical analysis software using the following statistical tools:

- descriptive statistics cardinalities, averages, and medians;
- nonparametric Mann-Whitney U test;
- multi-factor ANOVA.

²¹ StatSoft, Inc. (2010). STATISTICA (data analysis software system), version 9.1. www.statsoft.com.

Survey result analysis

To analyse the closed query answers (i.e. questions 1, 3, 5, 7, 9), the nonparametric Mann-Whitney U test was used. Selected analysis results are presented on the following figures showing range, median, and quartile deviation (25–75%) for the compared variables.

The analysis of the opinions of the surveyed students, school teachers and academic teachers with respect to practicum programs and journals used for physical education and compensation and corrective gymnastics, as well as to practicum monitoring sheets at the primary school and lower secondary school level This part of the analysis shows opinions gathered from students, school teachers, and academic teachers treated as a whole examined population.

Figure 5.1 shows differences among opinions of the surveyed students, school teachers and academic teachers on practicum programs for physical education in primary and lower secondary schools. The differences are statistically significant at p < 0.001 level. To determine the significance of differences a Mann-Whitney U test was used. The opinion median values are on the same level and equal 4 points (4 – highly

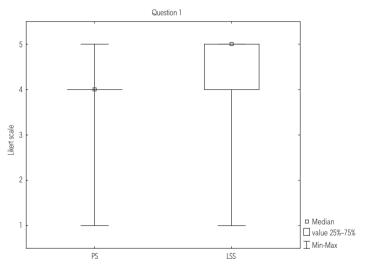


Figure 5.1. Differences among respondents' opinions for question 1: *How do you evaluate the primary (lower secondary) school practicum program for physical education teachers? Please mark on the scale.* PS – opinions of students who completed practicums in primary schools, LSS – opinions of students who completed practicums in lower secondary schools (5 – very highly rated, 4 – highly rated, 3 – I'm not sure / I have no opinion, 2 – low rated, 1 – very low rated).

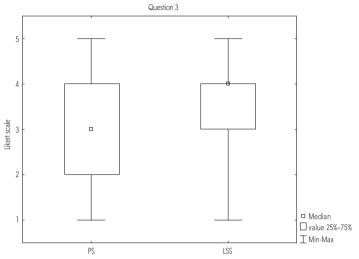


Figure 5.2. Differences among respondents' opinions for question 3: *How do you evaluate the primary (lower secondary) school practicum journal for physical education teachers? Please mark on the scale.* PS – opinions of students who completed practicums in primary schools, LSS – opinions of students who completed practicums in lower secondary schools (5 – very highly rated, 4 – highly rated, 3 – I'm not sure / I have no opinion, 2 – low rated, 1 – very low rated).

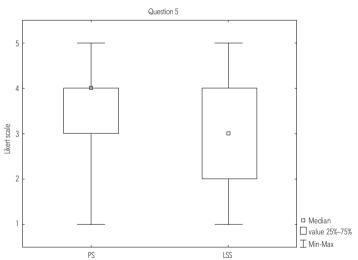


Figure 5.3. Differences among respondents' opinions for question 5: *How do you evaluate the primary (lower secondary) school practicum program for compensation and corrective gymnastics teachers? Please mark on the scale.* PS – opinions of students who completed practicums in primary schools, LSS – opinions of students who completed practicums in lower secondary schools, (5 – very highly rated, 4 – highly rated, 3 – I'm not sure / I have no opinion, 2 – low rated, 1 – very low rated).

rated), thus the observed difference is due to the quartile deviation, which for the postpracticum survey in primary schools is located in the median point, and for the post-practicum survey in lower secondary schools is located between the 4 point (4 – highly rated) and point 5 (very highly rated).

Differences among respondents' opinions on teacher practicum journals for physical education are shown in Figure 5.2. Opinions of the respondents concerning teacher practicum journals for lower secondary schools are statistically significantly higher than for primary schools; to determine the significance of differences a Mann-Whitney U test was used. The opinion median for the values gathered after the practicums in primary schools equals 3, and the opinion median for the values gathered after the practicums in lower secondary schools equals 4. The opinions of the respondents also differ in quartile deviation (25–75%), which for the opinions on teacher practicum journals in primary schools is in the range from point 2 (2 – low rated) to point 4 (4 – highly rated).

Figures 5.3 and 5.4 show differences among opinions of the surveyed students on the program (Figure 5.3) and journal (Figure 5.4) for the practicums for compensation and corrective gymnastics teachers. In both cases, the opinions gathered from students who completed practicums in primary schools are statistically significantly higher

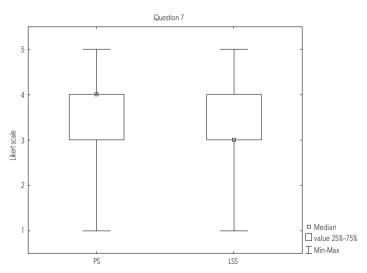


Figure 5.4. Differences among respondents' opinions for question 7: *How do you evaluate the journal used in the primary (lower secondary) school practicum program for compensation and corrective gymnastics teachers? Please mark on the scale.* PS – opinions of students who completed practicums in primary schools, LSS – opinions of students who completed practicums in lower secondary schools, (5 – very highly rated, 4 – highly rated, 3 – I'm not sure / I have no opinion, 2 – low rated, 1 – very low rated).

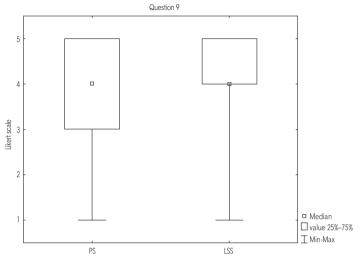


Figure 5.5. Differences among respondents' opinions for question 9: *How do you assess the proposed tool to evaluate the course of the practicum: monitoring sheet used in the primary school practicum program*? PS – opinions of students who completed practicums in primary schools, LSS – opinions of students who completed practicums in lower secondary schools, (5 – very highly rated, 4 – highly rated, 3 – I'm not sure / I have no opinion, 2 – low rated, 1 – very low rated).

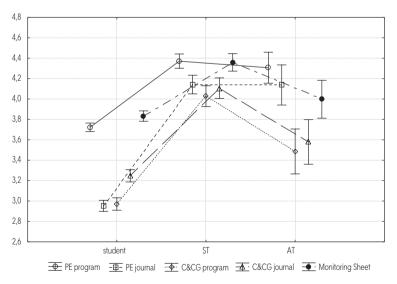


Figure 5.6. Differences among opinions of the surveyed students (Student), school teachers (ST), and academic teachers (AT) with respect to practicum programs and journals used for physical education (PE), and compensation and corrective gymnastics (C&CG), as well as to practicum monitoring sheets (Monitoring Sheet) for all the results.

than in lower secondary schools. In the case of opinions on the practicum program the differences can be seen through median and quartile deviation values. For the opinions on teacher practicum journals the quartile deviation values are the same, and the difference is due to the lower median of post-practicum opinions collected in lower secondary schools.

Figure 5.5 shows differences among opinions of the surveyed students on the practicum monitoring sheets in primary and lower secondary schools. The median values are on the same level, 4 (4 – highly rated), and the opinions gathered after the practicums in primary schools have a broader range of quartile deviation than the ones gathered in lower secondary schools. In this case, the value and range of the deviation affects the magnitude and significance of the difference notated. As previously, a Mann-Whitney U test was used.

Figure 5.6 shows the results of ANOVA analysis conducted for individual closed questions in the evaluation survey. The defined model included answers to questions from the used survey as dependent variables, and role of the respondent in the project (Student, ST – school teacher, AT – academic teacher) as independent variables. The figure implies that the respondents rated highest the practicum programs and practicum journals used, rated lowest the practicum programs and journals for compensation

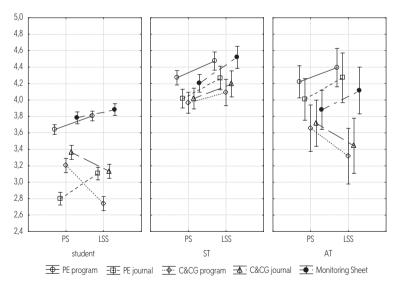
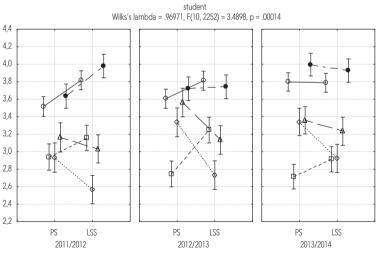


Figure 5.7. Differences among opinions of the surveyed students (Student), school teachers (ST), and academic teachers (AT) with respect to practicum programs and journals used for physical education (PE), and compensation and corrective gymnastics (C&CG), as well as to practicum monitoring sheets (Monitoring Sheet) in primary and lower secondary schools.

and corrective gymnastics, and in the case of students, also practicum programs and journals for physical education.

Opinions of students on all the questions presented are the lowest, opinions of school teachers (ST) are the highest, and opinions of academic teachers (AT) are in between.

Figure 5.7 shows the detailed picture of differences in the opinions of students, school teachers (ST), and academic teachers (AT) with respect to practicum journals and practicum monitoring sheets. What seems to be characteristic of this is the shared views of students and teachers on the program and journal for compensation and corrective gymnastics. While the opinions of academic teachers are significantly higher than those of students, there is a notable trend of lower opinions of teachers and students on the program and journal for compensation and corrective gymnastics in lower secondary schools than in primary schools. No such trend was observed in opinions of school teachers. Apart from the above described trend, all of the test groups higher evaluate the questions related to practicums in lower secondary schools than in primary schools.



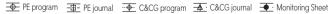


Figure 5.8. Opinions of the surveyed students of particular years on practicum programs and journals used for physical education (PE), and compensation and corrective gymnastics (C&CG), as well as on practicum monitoring sheets (Monitoring Sheet) in primary and lower secondary schools.

The analysis of opinions of students of different years surveyed about the practicum programs, journals, and monitoring tools

Multi-Factor ANOVA was used to analyse the opinions of students on the practicum programs, journals, and practicum monitoring sheets. Answers to the questions from the evaluation survey sheet were included in the model on the side of the dependent variables, while subsequent practicums divided into primary schools (PS), and junior high schools (LSS), and into individual academic years (2011/2012, 2012/2013, 2013/2014) were placed on the side of the independent variables.

In individual average opinions of students of individual years presented in Figure 5.8, a few distinctive trends can be seen. First of all, students of all years rated highest the practicum programs for physical education and practicum monitoring sheets. The practicum journal for physical education received worse reviews after primary school practicums than after lower secondary school practicums. The same trend can be observed with respect to the physical education practicum program and monitoring sheets.

The respondents' opinions regarding the practicum program and journals for compensation and corrective gymnastics were more favourable after primary school practicums than after lower secondary school practicums.

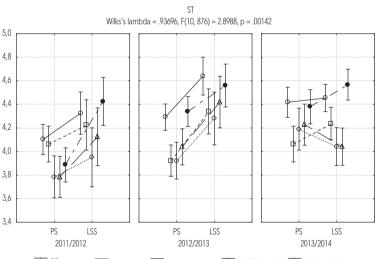




Figure 5.9. The opinions of the surveyed school teachers of particular years on practicum programs and journals used for physical education (PE), and compensation and corrective gymnastics (C&CG), as well as on practicum monitoring sheets (Monitoring Sheet) in primary and lower secondary schools.

The analysis of opinions of school and academic teachers with respect to practicum programs, journals, and monitoring tools in subsequent years

Multi-Factor ANOVA was used to analyse the opinions of school and academic teachers on the practicum programs, journals, and practicum monitoring sheets (Figures 5.9, 5.10). Answers to the questions from the evaluation survey sheet were included in the model on the side of the dependent variables, while subsequent practicums divided into primary schools (PS), and junior high schools (LSS), and into individual academic years (2011/2012, 2012/2013, 2013/2014) were placed on the side of the independent variables.

In general, the opinions of lower secondary school teachers are higher than the opinions of primary school teachers. This trend can be seen in all the questions in the survey and is true for the three subsequent practicums (2011/2012, 2012/2013, 2013/2014) in primary and lower secondary schools. The only exception is the opinions of lower secondary school teachers regarding the practicum program and journals for compensation and corrective gymnastics in the last year of the project implementation. In that year the opinions are lower than the ones expressed by the primary school teachers.

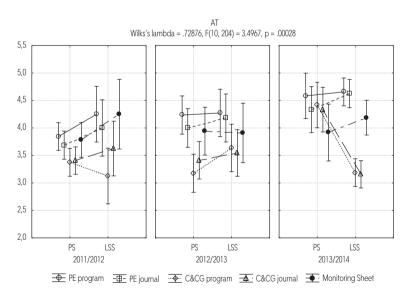


Figure 5.10. The opinions of the surveyed academic teachers of particular years on practicum programs and journals used for physical education (PE), and compensation and corrective gymnastics (C&CG), as well as on practicum monitoring sheets (Monitoring Sheet) in primary and lower secondary schools.

In the case of academic teachers a similar trend was observed as in the case of school teachers. The opinions expressed by the respondents are higher after lower secondary school practicums than after primary school practicums. There are only two exceptions. First, the opinions of the academics on the program of the compensation and corrective gymnastics in school year 2011/2012 are worse after the lower secondary school practicums than after primary school practicums. The second exception to the general trend are the opinions of the surveyed academic teachers of particular years on practicum programs and journals used for the compensation and corrective gymnastics practicums in lower secondary schools in year 2013/2014.

5.2. Knowledge tests and grades

Survey goal

The cognitive goal of the survey was to determine if and to what degree changes were present in the students' knowledge of issues practically implemented during teacher practicums in primary schools as part of the *New Quality of Teacher Practicums* project, and what grades were given to the students by school and academic teachers.

Practical survey goal

The practical goal of the research was to modify the process of preparing and implementing teacher practicums with respect to the practicum program and implementation, and the program and implementation of Physical Education Methodology course, and the program and implementation of training sessions for the school teachers acting as practicum tutors.

Survey queries:

- 1. What level is reached by the students of individual years after the knowledge tests taken before and after the practicums in primary and lower secondary schools?
- 2. What are the self-assessments provided by the students of individual years, and what grades do they receive from school and academic teachers for completing practicums in primary and lower secondary schools?
- 3. Are overall final practicum grades given by school and academic teachers correlated to the results obtained by the students in knowledge tests?

The characteristics of the researched group

The research covered students participating in teacher practicums in years 2011–2014. Table 5.2 shows the detailed number of people in individual groups in subsequent years divided by gender.

Table 5.2. Students completing teacher practicums as part of the New Quality of
Teacher Practicums project in years 2011–2013

Group	Gender	ye	lemic ar /2012	Acad ye 2012,			lemic ar /2014	Primary school practicums	Lower secondary school
		PS	LSS	PS	LSS	PS	LSS	2011–2013	practicums 2013-2014
Students	М	93	107	97	99	116	110	306	316
	F	85	85	89	87	85	79	259	251
	Sum	178	192	186	186	201	189	565	567

The used research method, research tools and techniques

In the conducted study, a diagnostic survey method (Pilch, Bauman 2010) was applied, with the use of questionnaires. To check the knowledge level in students, three proprietary knowledge tests were used.

Two such knowledge tests were used before and after primary school practicums, and the third one before and after lower secondary school practicums.

The first test comprised of fifteen questions on teaching in general, and on physical education methodology; this test was used before and after primary school practicums. The second test comprised of five questions on compensation and corrective gymnastics; it was used before and after primary school practicums. The third one comprised of sixteen questions, among which twelve referred to general teaching knowledge and physical education methodology, and four referred to compensation and corrective gymnastics.

The survey questionnaires used are presented in Appendices 4, 5, and 6 to this monograph.

Analysing the documents is the second research technique used in the study. The input was collected using two practicum monitoring sheets:

- monitoring sheet used in the primary school practicum program,

- monitoring sheet used in the lower secondary school practicum program.

During teacher practicums, each student was obliged to fill such a document together with a school and academic teacher. Each student had to provide a selfassessment of the completion of individual practicum tasks, and the teachers a evaluated the quality of the tasks from their own perspective. The self-assessments of the students, and the grades assigned by the school and academic teachers for demonstration lessons (monitored by a school teacher and supervised by an academic teacher) conducted during primary and secondary school practicums, as well as overall final practicum grades given by academic teachers were used as the input data to be analysed.

During each of the practicums – both in a primary school, and in a lower secondary school – students had to conduct three lessons that were subject to such a three-stage evaluation. Two lessons were devoted to physical education and one to compensation and corrective gymnastics.

This procedure resulted in the need to provide self-assessments of two physical education lessons and one compensation and corrective gymnastics.

At the same time, each of the lessons was assessed by a school teacher (ST) who was a practicum tutor, and an academic teacher (AT) who was a supervisor. As a result of this 'three channel' assessment of the lessons conducted, there are nine partial grades, six of which are for physical education lessons and three for compensation and corrective gymnastics. At the end of the practicum, each of the academic teachers (AT) acting as supervisors assigned a final grade. A student completing their practicum received two final grades, one for the completing a physical education practicum, and one for completing a compensation and corrective gymnastics practicum. Sample grades for individual lessons and activities is shown below (Table 5.3).

The overall final practicum grade was obtained as a weighted average of the physical education (PE) grade and compensation and corrective gymnastics (C&CG) grade, calculated with the formula specified in The Rules of Organization and Execution of Teacher Practicums approved by the Physical Education Department's Deputy Dean of Teacher Practicums on the Physical Education Specialization:

Final grade = $A \times 0.75 + B \times 0.25$

where:

A – the grade for the main course part of the practicum (physical education);

B – the grade for the additional course part of the practicum (compensation and corrective gymnastics)²².

²² http://www.praktyki.awf.wroc.pl/Stronka/REGULAMIN%20ORGANIZACJI%20I%20REALIZACJI%20 PRAKTYK%20PEDAGOGICZNYCH%20-aktualizacja%20styczen%202013.pdf, p. 6–7.

	Final grada	2	2	-+	2
	Final grade	5	<u>ل</u>	4	
	Weighted average			4	2 2
E	C&CG grade	2	2 2	2 2	2
cticu	PE grade	5	2	4	2
l pra	AT C&CG 1	S	Ъ	4	2
poul	ST C&CG 1	£	2	4	4
ury so	Student C&CG 1	2	£	4	4
onda	AT PE 2	ß	Q	4	Ŋ
seco	AT PE 1	ß	£	4	4
Lower secondary school practicum	ST PE 2	S	Ð	4	2
Ľ	ST PE 1	£	4	4	4
	Student PE 2	S	Ð	4	4
	Student PE 1	S	4	4	£
	Final grade	S	£	4	£
	Weighted average	£	£	4	£
	C&CG grade	2	£	£	£
_	PE grade	2	£	4	£
ticum	AT C&CG 1	5	£	4	£
prac.	ST C&CG 1	£	£	4	4
Ιοοι	Student C&CG 1	S	Ð	4	4
y scł	AT PE 2	ß	Ð	4	Ŋ
Primary school practicum	AT PE 1	S	Q	4	4
P	ST PE 2	2	£	4	£
	ST PE 1	2	4	4	4
	Student PE 2	ъ	ъ	4	4
	Student PE 1	ß	4	4	£
Ge	Gender		E	÷	÷
Stu	Student's full name		ХҮ2	Х Ү З	Х Ү 4
No	No.			n	4

The analyses were carried out in STATISTICA 9.1²³ statistical analysis software using the following statistical tools:

- descriptive statistics cardinalities, averages, minimum, maximum, standard deviation;
- t-Student's test for samples independent of the variables;
- multi-Factor ANOVA;
- simple linear correlation (Pearson's r).

The analysis of the changes in students' knowledge resulting form teaching practicums in primary and lower secondary schools

To analyse and compare the number of correct answers in tests conducted before and after primary school practicums and before and after lower secondary school practicums, percentages of correct answers were defined. The use of percentages was dictated by the need to compare data showing diversified absolute values. As described above, the tests used included different numbers of questions, therefore only by using percentages of correct and incorrect answers allowed for quantitative result comparing. Numbers of questions on general teaching knowledge and the methodology of physical education, and compensation and corrective gymnastics methodology can be found in the following Table 5.4.

Table 5.4. Numbers of questions in individual tests on general teaching knowledge
and the methodology of physical education, and compensation and corrective
gymnastics

The test before and af practicums	ter primary school	The test before and after lower secondary school practicums		
general teaching knowledge and physical education methodology	compensation and corrective gymnastics knowledge	general teaching knowledge and physical education methodology	compensation and corrective gymnastics knowledge	
15	5	12	4	

To perform this analysis knowledge level indicators were devised for each test, as well as knowledge change indicators between the initial test taken before the practicum, and a final test taken after the practicum.

The knowledge level indicators are sums of correct answers in the knowledge test on general teaching knowledge and the methodology of physical education taken

²³ StatSoft, Inc. (2010). STATISTICA (data analysis software system), version 9.1. www.statsoft.com.

before the practicum (PE1) and after the practicum (PE2), and a knowledge test on compensation and corrective gymnastics taken before the practicum (C&CG1) and after the practicum (C&CG2), and overall indicators calculated as a sum of correct answers in both tests before the primary school (Bpsp):

 $Bpsp = (PE1 + C&CG1)^*100/20$ and after primary school practicums (Apsp) $Apsp = (PE2 + C&CG2)^*100/20$

PE1 and PE2 indicators can have values from [0] to [15], C&CG1 and C&CG2 indicators can have values from [0] to [5], and the Bpsp and Apsp indicators can have values from [0%] to [100%].

An overall indicator ABpsp was also devised. It is a difference between the sum of correct answers in both tests after the practicum and the sum of correct answers before the practicum.

ABpsp = Apsp – Bpsp

Valid values range from [-100] to [100].

Similar indicators were devised for the tests taken before and after lower secondary school practicums:

Blssp = (PE1 + C&CG1)*100/16 and after lower secondary school practicums (Alssp) Alssp = (PE2 + C&CG2)*100/16 ABlssp = Alssp - Blssp

Knowledge test results achieved by the students of particular years before and after practicums

Table 5.5 shows the results of the above described indicators specifying the knowledge levels and changes in the knowledge levels in students. The indicators have been grouped in three columns. From the left respectively, knowledge level before primary school practicums (Bpsp), knowledge level after primary school practicums (Apsp), and the knowledge change indicator (ABpsp), knowledge level before lower secondary school practicums (Blssp), knowledge level after lower secondary school practicums (Alssp), and the knowledge change indicator (ABpsp). The following statistical measures were used to describe the phenomenon: arithmetical mean, minimum, maximum, and the standard deviation. The rows with the arithmetical mean of particular indicators are marked bold.

	Group	Measure	Knowledge level before the practicums Bpsp	Knowledge level after the practicums Apsp	Knowledge change indicator ABpsp
	All the surveyed	# of valid	565	565	565
	respondents	Mean	65.1	82.8	17.7
		Minimum	15	0	-60
		Maximum	120	100	85
		Std. dev.	12.2	15.9	18.7
	Students completing	# of valid	178	178	178
	practicums in the academic year 2011/2012	Mean	62.9	75.6	12.8
		Minimum	20	30	-40
		Maximum	95	100	55
		Std. dev.	11.8	14.9	16.6
	Students completing practicums in the academic year 2012/2013	# of valid	186	186	186
		Mean	68.5	82.0	13.5
ns		Minimum	20	0	-60
cur		Maximum	120	100	65
practicums		Std. dev.	11.9	15.7	18.5
	Students completing	# of valid	201	201	201
Primary school	practicums in the	Mean	64.0	90.0	26.0
y sc	academic year	Minimum	15	0	-60
nar	2013/2014	Maximum	90	100	85
Prii		Std. dev.	12.3	13.7	17.8

Table 5.5. Knowledge test results achieved by all the tested students before and after the primary school practicums, divided by study years

Since analysing the data presented in a tabular form may be not straightforward, it was decided that the mean values for the whole group and for individual years would also be present in the form of graphs.

The indicators were presented on two graphs, Figure 5.11 shows mean percentage values of knowledge level indicators before the practicum [Bpsp] and after it [Apsp] in primary schools, and the knowledge change indicator [ABpsp] for all the tested students, divided by study years.

	Group	Measure	Knowledge level before the practicums Blssp	Knowledge level after the practicums Alssp	Knowledge change indicator ABIssp
		# of valid	567	567	567
		Mean	71.6	78.5	6.8
	All the surveyed respondents	Minimum	0	0	-81.3
	respondents	Maximum	100	100	93.8
		Std. dev.	15.5	14.3	19.1
		# of valid	192	192	192
	Students completing practicums in the academic year 2011/2012	Mean	70.7	74.3	3.6
		Minimum	25	0	-81.3
		Maximum	93.8	100	56.3
S		Std. dev.	13.6	14.0	17.9
m	Students completing	# of valid	186	186	186
Ictio		Mean	73.7	84.8	11.2
pra	practicums in the academic year	Minimum	25	43.8	-37.5
loor	2012/2013	Maximum	100	100	75
sch		Std. dev.	13.7	14.1	18.0
lary		# of valid	189	189	189
ouo	Students completing	Mean	70.5	76.4	5.9
-ower secondary school practicums	practicums in the academic year	Minimum	0	43.8	-37.5
ver	2013/2014	Maximum	93.8	100	93.8
Lo		Std. dev.	18.6	12.5	20.5

Table 5.6. Knowledge test results achieved by all the tested students before and after the lower secondary school practicums, divided by study years

Figure 5.12 shows mean percentage values of knowledge level test results before the practicum [Blssp] and after the practicum [Alssp] in lower secondary schools, and the percentage value of the knowledge change indicator [ABlssp].

T-Student's test for samples independent of the variables was used to calculate differences between the levels of the students' knowledge before and after lower secondary school and primary school practicums. The differences between Bpsp and Apsp, and between Blssp and Alssp indicators are statistically significant for whole populations being analysed and for the individual years; a statistical significance p < 0.05 was assumed.

Additionally, comparisons were made among the results achieved by particular years in knowledge tests. Multi-Factor ANOVA was used to perform these comparisons.

Figure 5.13 shows percent values of knowledge level indicators, and knowledge change indicators for individual years completing primary school practicums. The

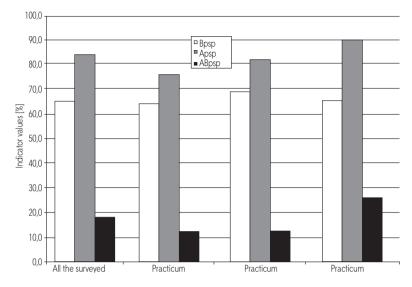


Figure 5.11. Mean percentage values of knowledge level indicators before the practicum [Bpsp] and after the practicum [Apsp] in primary schools, and the percentage value of the knowledge change indicator [ABpsp].

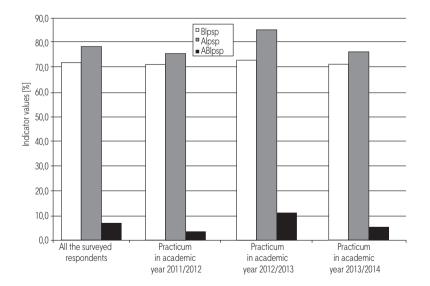


Figure 5.12. Mean percentage values of knowledge level indicators before the practicum [Blssp] and after the practicum [Alssp] in lower secondary schools, and the percentage value of the knowledge change indicator [ABlssp].

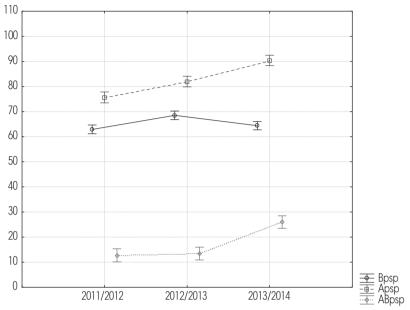


Figure 5.13. Differences among the percentage values of knowledge level indicators [Bpsp] [Apsp] knowledge change indicators [ABpsp].

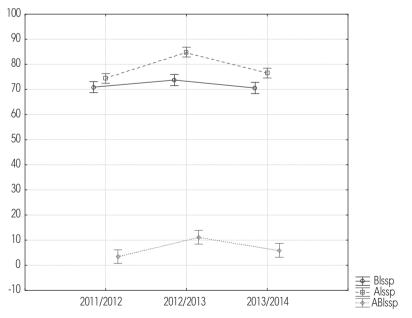


Figure 5.14. Differences among the percentage values of knowledge level indicators [Blssp] [Alssp] and knowledge change indicators [ABlssp].

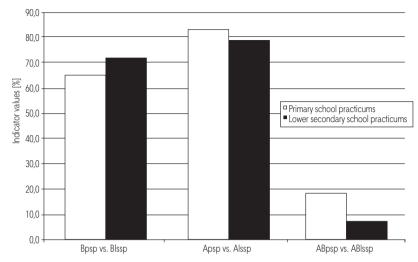


Figure 5.15. Differences among the percentage values of knowledge level indicators obtained before [Bpsp vs. Blssp] and after [Apsp vs. Alssp] practicums in primary schools and lower secondary schools, and knowledge change indicators [ABpsp vs. ABlssp].

most striking statistically significant observation was achieving by subsequent years better and better values of Apsp indicator, which is the number of correct answers in knowledge tests taken after primary school practicums. At the same time the last of the analysed years (2013/3014) obtained the highest mean value of [Apsp] indicator, and the lowest mean value of [Bpsp] indicator, which resulted in the highest value of knowledge change indicator [ABpsp] among all the analysed years.

When measuring corresponding indicators before and after practicums in lower secondary schools (Table 5.6, Figure 5.14), the highest mean values of [Alssp] and [ABlssp] indicators were obtained by the students of the year undergoing lower secondary school practicums in academic year 2012/2013. All the above described differences are statistically significant at p < 0.05 level.

Comparing among mean knowledge level indicators before and after practicums, and also among mean knowledge change indicators can be found interesting. This comparisons are shown in Figure 5.15; the analysis was performed for all the respondents. The differences among the mean values visualized in the figure are statistically significant. T-Student's test for samples independent of the variables was used to calculate statistical significance. The surveyed students achieved worse results in the tests taken before practicums in primary schools than before practicums in lower secondary schools. On the other hand, the test results taken after the practicums show the opposite trend. Students taking tests after primary school practicums had better results than the students taking tests after lower secondary school practicums. As far as the knowledge growth is concerned, students after primary school practicums had better results than after lower secondary school practicums.

Summary and conclusions

Students achieve worse results (fewer correct answers) in knowledge tests taken before the practicums than after the practicums. The observed difference is statistically significant. The regularity described applies to all practicums and all years.

The changes in knowledge level measured by the tests used can result from confronting the students' theoretical knowledge gained in the course of studies with the practical aspects of physical education and compensation and corrective gymnastics at school.

It is advisable that the changes which may show up in the knowledge of students undergoing the teacher practicums be monitored.

Comparing the grades given to students by academic teachers for completing primary and lower secondary school practicums, and the students' self-assessments T-Student's test for samples independent of the variables was used to compare the mean values of the students' self-assessments for the monitored physical education and compensation and corrective gymnastics lessons with the grades given by school teachers (ST) and academic teachers (AT) during primary and lower secondary school practicums.

A Pearson's correlation analysis was conducted for the students' self-assessments and grades given to students by school (ST) and academic teachers (AT).

The presented analyses pertain to all the collected results for three years undergoing teacher practicums in primary and lower secondary schools. It was decided that the results would not be presented divided by individual study years because the mean grades on each year showed the same trend as the one depicted below, for all of the collected results.

Figure 5.16 shows mean values of students' self-assessments for monitored physical education and compensation and corrective gymnastics lessons across all the years of students undergoing primary and lower secondary school practicums. T-Student's test for samples independent of the variables was used. Students give themselves lower grades for the first monitored physical education classes than for the second one. Also self-assessments for both monitored classes in lower secondary schools are statistically significantly higher than for those in primary schools. No differences were noted among primary and lower secondary schools for self-assessments given by the students for compensation and corrective gymnastics.

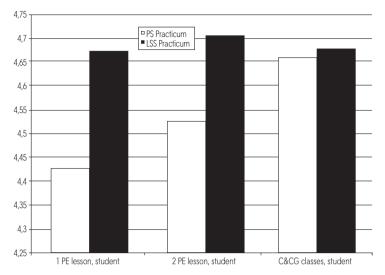


Figure 5.16. Mean values of students' self-assessments for the monitored physical education and compensation and corrective gymnastics lessons. 1 PE lesson – the first monitored physical education lesson, 2 PE lesson – the second monitored physical education lesson, C&CG classes – monitored compensation and corrective gymnastics classes.

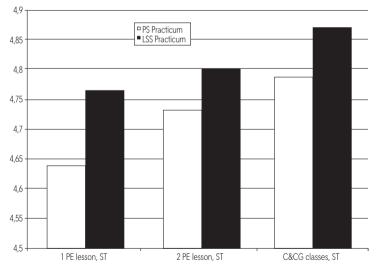


Figure 5.17. Mean values of the grades given to the students by school teachers (ST) for the monitored physical education and compensation and corrective gymnastics lessons. 1 PE lesson – the first monitored physical education lesson, 2 PE lesson – the second monitored physical education lesson, C&CG classes – monitored compensation and corrective gymnastics classes.

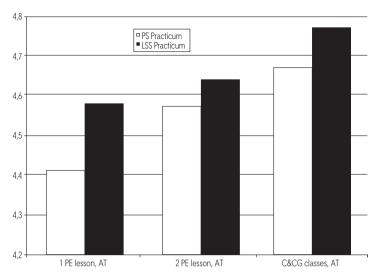


Figure 5.18. Mean values of the grades given to the students by academic teachers (AT) for the monitored physical education and compensation and corrective gymnastics lessons. 1 PE lesson – the first monitored physical education lesson, 2 PE lesson – the second monitored physical education lesson, C&CG classes – monitored compensation and corrective gymnastics classes.

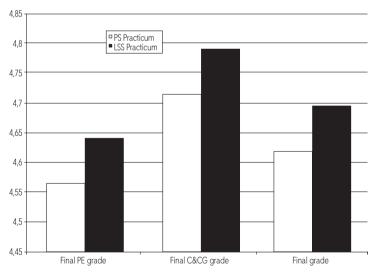


Figure 5.19. Mean values of the final grades given to the students for physical education (PE) and compensation and corrective gymnastics (C&CG), and of the final practicum grades.

As with the students, the school teachers' assessments for the monitored physical education and compensation and corrective gymnastics classes (Figure 5.17) are statistically significantly higher in the case of lower secondary school practicums than in the case of primary school practicums. T-Student's test for independent samples was used to calculate statistical significance.

The Pearson's correlation coefficient between the students' self-assessments and the grades given to students by school teachers was r = 0.71 for the first physical education lesson, r = 0.66 for the second physical education lesson, r = 0.65 for the compensation and corrective gymnastics in primary schools, and r = 0.62 for the first physical education lesson, r = 0.63 for the second physical education lesson, r = 0.50for the compensation and corrective gymnastics in lower secondary schools. All the correlations are statistically significant at p < 0.05 level. The correlation coefficients were calculated for the whole examined population with whole case removing for the gaps – the cases with incomplete sets of data were excluded from the analysis, for example there were people who took part only in primary school practicums or only in lower secondary school practicums for various reasons.

Figure 5.18 shows the differences among the grades given to the students by academic teachers. The first physical education lesson and compensation and corrective gymnastics lesson were statistically significantly higher assessed during lower secondary school practicums than primary school practicums (p < 0.05). In the case of average grades for the second monitored physical education lesson, the differences were not statistically significant.

The values of the Pearson's correlation coefficient r among the students' selfassessments and the grades given by academic teachers were also determined. The coefficient value was r = 0.72 for the first physical education lesson, r = 0.72 for the second physical education lesson, r = 0.60 for the compensation and corrective gymnastics in primary schools, and r = 0.62 for the first physical education lesson, r = 0.62 for the second physical education lesson, r = 0.47 for the compensation and corrective gymnastics in lower secondary schools. As previously, the cases with incomplete sets of data were excluded from the analysis.

The Pearson's correlation coefficient between the grades given to students by school teachers and the grades given to students by academic teachers was r = 0.72 for the first physical education lesson, r = 0.77 for the second physical education lesson, r = 0.65 for the compensation and corrective gymnastics in primary schools, and r = 0.68 for the first physical education lesson, r = 0.69 for the second physical education lesson, r = 0.52 for the compensation and corrective gymnastics in lower secondary schools. All the correlations are statistically significant at p < 0.05 level.

The same regularity as seen in the described above self-assessment and teacher given grades applies to, which is quite obvious, the final grades in physical education and compensation and corrective gymnastics, and to the final practicum grade (Figure 5.19). (How the final practicum grade is assigned can be found at the beginning of this section.) The grades given for both physical education and compensation and corrective gymnastics tasks are higher in lower secondary school practicums than in primary school practicums. The final grades given after lower secondary school practicums are also statistically significantly higher than the grades given after primary school practicums. As previously, t-Student's test for samples independent of the variable was used to determine the differences. The differences are statistically significant at p < 0.05 level.

Table 5.7 shows the results of factor analysis conducted with the use of principal components and Varimax raw rotation. The factor analysis model included all the partial grades for physical education and compensation and corrective gymnastics lessons in primary and lower secondary schools, final grades for physical education and compensation and corrective gymnastics practicums in primary and lower secondary schools, and overall final practicum grades. After conducting the rotation the authors were able to isolate four factors that explain most of the variance in the model. Factor 1 is responsible for the primary school practicum grade for physical education. It comprised the grades for the monitored physical education classes given to students by school teachers, academic teachers, and students themselves, and the final grade for physical education at PS, and the overall final practicum grade at PS. Factor 2 is responsible for the lower secondary school practicum grade for physical education. It comprises grades for the monitored physical education classes given by students (only second lesson), and school and academic teachers. The two above described factors are responsible for 46% of variance in the model. The other two factors, 3 and 4, are responsible for compensation and corrective gymnastics grade in lower secondary schools (factor 3), and the corrective gymnastics grade in primary schools (factor 4). Factor 4 is the strongest. It comprises all the grades for the monitored classes for compensation and corrective gymnastics in primary schools and the final grade for this part of the practicums. The third factor comprises only the grade given to students by academic teachers, and the final grade for compensation and corrective gymnastics in lower secondary schools.

Summary and conclusions

The average grades received by students for the monitored physical education and compensation and corrective gymnastics classes are above B ('good'). The lowest of the noted average grades were given by academic teachers for the first monitored physical education classes in primary schools (4.4), and the highest were given by school teachers for compensation and corrective gymnastics classes in lower secondary schools (4.87).

Table 5.7. Factor analysis of students' self-assessments and partial grades in monitored classes given by school teachers (ST) and academic teachers (AT), and overall final practicum grades for primary and lower secondary school practicums. PS – primary school practicums, LSS – lower secondary school practicums, PE – physical education classes, C&CG – compensation and corrective gymnastics classes. The variables included in particular factors are marked bold

Variable	Factor 1	Factor 2	Factor 3	Factor 4
1 PE lesson, student	0.78	0.07	0.03	0.10
2 PE lesson, student	0.76	0.12	0.10	0.18
1 PE lesson, ST, PS	0.80	0.08	0.07	0.22
2 PE lesson, ST, PS	0.76	0.09	0.13	0.30
1 PE lesson, AT, PS	0.82	0.13	0.06	0.10
2 PE lesson, AT, PS	0.83	0.19	0.10	0.17
C&CG classes, student PS	0.31	0.13	0.03	0.73
C&CG classes, ST, PS	0.44	0.08	0.03	0.73
C&CG classes, AT PS	0.20	0.06	0.02	0.89
PE grade, PS	0.86	0.15	0.12	0.22
C&CG grade, PS	0.27	0.11	0.08	0.86
final C&CG grade, PS	0.82	0.15	0.12	0.34
1 PE lesson, student, LSS	0.12	0.67	0.09	0.06
2 PE lesson, student, LSS	0.07	0.76	0.09	0.08
1 PE lesson, ST, LSS	0.06	0.75	0.22	0.05
2 PE lesson, ST, LSS	0.07	0.76	0.26	0.02
1 PE lesson, AT, LSS	0.14	0.76	0.10	0.10
2 PE lesson, AT, LSS	0.14	0.83	0.07	0.10
C&CG classes, student, LSS	0.14	0.26	0.60	0.15
C&CG classes, ST, LSS	0.06	0.44	0.65	0.05
C&CG classes, AT, LSS	0.16	0.09	0.90	0.03
PE grade, LSS	0.20	0.84	0.11	0.08
C&CG grade, LSS	0.12	0.27	0.84	0.03
Final grade, LSS	0.21	0.81	0.27	0.10
Initial variance	5.79	5.29	2.63	3.06
Share	0.24	0.22	0.11	0.13

Physical education part of the practicum has the biggest impact on final practicum grades – in both primary and lower secondary schools. This is a result of the final grade algorithm described in the teacher practicum rules, and it was further confirmed by the above presented factor analysis.

Overall final practicum grades given by school and academic teachers versus the results obtained by the students in knowledge tests

Pearson's r correlation was used to analyse the relationship between the results obtained by students in knowledge tests and overall final practicum grades. For the correlation analysis, all the earlier described knowledge level and knowledge change indicators in students as well as final teacher practicum grades were used (Table 5.8).

Table 5.8. Values of the Pearson's r coefficient for the correlation among knowledge levels and changes in the knowledge levels in students and final practicum grades in primary and lower secondary schools for physical education and compensation and corrective gymnastics, and overall final practicum grade

marked with ***							
Knowledge test	PE grade,	C&CG	Final C&CG	PE grade,	C&CG	Final	
indicators	PS	grade, PS	grade, PS	LSS	grade, LSS	grade, LSS	
Bpsi	0.19***	0.16***	0.18***	0.09***	0.06	0.12***	
Apsi	0.1***	0.05	0.08***	0.09	0.07	0.08	
ABpsi	-0.04	-0.06	-0.05	0.01	0.02	-0.01	
Blssi	0.08	0.05	0.09	0.2***	0.09***	0.2***	
Alssi	0.12***	0.14***	0.13***	0.17***	0.09***	0.17***	
ABIssi	0.02	0.07	0.02	-0.04	-0.01	-0.04	

Values of the Pearson's r coefficient. All the correlation coefficients with significance p < 0.05 are

The highest noted correlation coefficients are among final practicum grades for physical education in primary schools and knowledge level indicators measured before the practicum Bpsp (r = 0.19), and among knowledge level indicators measured before the lower secondary school practicums Blssp and final practicum grades for physical education in lower secondary schools (r = 0.2) and final overall final practicum grade in lower secondary schools (r = 0.2). However, the correlation among the variables is weak because the values of Pearson's r correlation coefficients do not exceed 0.2.

Summary and conclusions

The observed correlations among the indicators showing the results of tests taken by the students and the grades grades given to students by academic teachers for completing particular practicum parts and the overall final practicum grades are small.

Low correlation coefficient values can therefore indicate that the correlated variables illustrate significantly different properties of the tested group of students. Thus, the knowledge level and change indicators represent a low predictive value for the grades obtained by students for practical skills.

6. Summary

As part of evaluating efficiency of the practicums being the part of the *New Quality of Teacher Practicums* project in primary schools, the authors asked a few survey questions (presented in Chapter 5, *Evaluation of practicum effectiveness in teacher education*). The results obtained and their analysis allowed us to make some general conclusions:

- 1. All the test groups, i.e. school teachers, university supervisors, and students rated high and very high the programs, practicum journals, and practicum monitoring sheets in both primary and lower secondary schools. Some significant differences were observed as to the opinions concerning primary schools and lower secondary schools (for details see the result analysis). Students were a group which rated the programs, journals and monitoring sheets significantly lower than the other test groups.
- 2. Among the students completing practicums in subsequent years of the project, some characteristic, recurring trends were detected in evaluations of the program, journals and monitoring sheets (for the description see Chapter 5, *Evaluation of practicum effectiveness in teacher education*).
- 3. Opinions of both school and academic teachers were medium or high, but please note that lower secondary school teachers had usually higher opinions than primary school teachers. Especially interesting is the fact that in the last year of the project implementation, lower secondary school teachers rated practicum journals and programs much lower than primary school teachers, whereby the level of those opinions was close to the level of the first year of practicums.
- 4. The knowledge level increased among the students in all the project implementation years. In the case of primary schools, knowledge gains were higher with each successive year. In the case of lower secondary schools, the highest knowledge gains were in years 2012/13 (the second year of practicums).
- 5. The average grades received by students for the monitored physical education and compensation and corrective gymnastics classes are above B ("good"). Also students' self-assessments were above B ("good").

6. The observed correlations between knowledge test results and overall final practicum grades given by the teachers were low.

These conclusions are answers to the research questions (see Chapter 5, *Evaluation of practicum effectiveness in teacher education*). They cannot be presented out of context, as was outlined in the previous chapter. For example, the higher knowledge gains in a specific year of the practicum implementation cannot be analysed without specifying the initial data – the smaller the initial value, the bigger (theoretically) the chance to achieve a higher gain (starting from the level of zero, one can achieve the maximum gain if one gets the maximum score in the post-practicum test). On the other hand, a null knowledge level gain does not allow, either, to conclude that practicums do not influence a gain in knowledge if a student gets maximum scores twice (before and after the practicum).

Therefore it is very difficult to unambiguously explain the reasons for achieving results without the context in which the project was implemented.

To the people who implemented the project and to those who would like to use some project elements in planning and implementing teacher practicums in their own educational institutions, the most important fact is that high correlations were achieved in opinions on the practicum implementation among the students, school, and university teachers (supervisors). This means that the project assumptions to incorporate close cooperation between the university which delegated the students, and the school teachers (representing the institution supervising them) proved to be correct. Verbalization of mutual expectations, working together on detailing the practicum scope, and continuous adjusting of practicum programs, and the related documents helped standardize the criteria for assessing students. Thus, the university delegating students can to a greater extent transfer the issues of final assessment to school teachers. Although it may not stand out at the first glance, it is a very important effect of our project.

The models existing so far (before 2011) assumed double assessing: first, by a school teacher, and then by a supervisor on behalf of the university. Usually, those two assessments did not coincide with each other, and the assessment of the school teacher was not even taken into account. This resulted, among others, from the lack of common ground between the university and school teachers. In our project, training provided by academic teachers to school teachers became such a common ground. It should be stressed that the term 'training' is used here as part of some mental shortcut: workshops were the dominating form of that training, and both parties, academic and school teachers, had equal rights, and could make comments and suggestions to the practicum program. There is also another very important conclusion that can be drawn from the practicum effects: teacher practicum implemented in accordance with the model described in our work proved to be effective, that is, resulted in changes in the level of knowledge and skills in students.

We hope that the developed model of cooperation will allow us to continue to improve the teacher practicum program and modify the related documentation. In future practicums, school teachers will retain the status of their subjectivity both with respect to training future teachers, and to assessing them. As a result, the delegating universities will be able to fully trust the school teachers' assessments.

We are convinced that the practicum model worked out as part of the *New Quality of Teacher Practicums* project, through the subjective engagement of all the parties involved in teacher practicums, contributes to the development of a participatory, civil society.

References

- 1. Acheson K.A., Gall M.D. (1987). Techniques in the clinical supervision of teachers, preservice and inservice applications (2nd ed.), Longman, New York.
- Act on the education system, dated March 11, 1932, along with the Ordinance of the Ministry of Religious Denominations and Public Enlightenment, dated May 30, 1933 (1933), Polish Teachers' Union, Central Committee. Nasza Drukarnia, Warszawa.
- 3. Act on the education system, dated September 7, 1991 (1991), Journal of Laws No. 95, item 425.
- Act on the general duty of vocational training, physical education, and military training for young people, as well as on sports and fitness training system, dated February 25, 1948 (1948), Journal of Laws No. 12, item 90, with subsequent amendments.
- 5. Act on the implementation of the education system reform, dated January 8, 1999 (1999), Journal of Laws No. 12, item 96, with subsequent amendments.
- 6. Bandura A. (1977). Self-efficacy: toward a unifying theory of behavioural change. *Psychological Review*, 84, 191–215.
- Beck C., Kosnik C. (2000). Associate teachers in pre-service education: Clarifying and enhancing their roles. *Journal of Education for Teaching*, 26(3), 208–224.
- Bieć E., Lewandowski M. (2013). Dziennik praktyki pedagogicznej. Gimnastyka kompensacyjno-korekcyjna, gimnazjum (klasy I–III), rok szkolny 2013/2014, Wrocławskie Towarzystwo Naukowe, Wrocław.
- Bieć E., Lewandowski M., Guła-Kubiszewska H. (2013). Dziennik praktyki pedagogicznej. Gimnastyka kompensacyjno-korekcyjna, szkoła podstawowa (klasy I–VI), rok szkolny 2013/2014, Wrocławskie Towarzystwo Naukowe, Wrocław.
- 10. Biggs J. (1996). Enhancing teaching through constructive alignment. *Higher Education*, 32(3), 347–364.
- Bowman N. (1979). College supervisor of student teaching: a time to reconsider. *Journal of Teacher Education*, 30, 29–30.
- 12. Britzman D. (1991). Practice makes practice: a critical study of learning to teach, State University of New York Press, Albany.
- 13. Conant J.B. (1963). The education of American teachers, McGraw Hill, New York.

- Department of Science, Education and National Heritage of the Supreme Audit Office (2010). Audit results. Physical education and sport at public schools, KNO-410-01-00/2009, Warszawa.
- Department of Science, Education and National Heritage of the Supreme Audit Office (2013). Physical education and sport at public and non-public schools, KNO-4101-06-00/2012, Warszawa.
- 16. Dewey J. (1933/1998). Democracy and education, The Free Press, New York.
- Duffield S. (2006). Safety net or free fall: the impact of cooperating teachers. *Teacher Development*, 10(2), 167–178.
- Dunning C., Meegan S., Woods C., Belton S.J. (2011). The impact of the COPTE programme on student PE teachers' teaching practice experience. *European Physical Education Review*, 17(2), 153–165.
- 19. Gaj J., Hądzelek K. (1997). Dzieje kultury fizycznej w Polsce, Akademia Wychowania Fizycznego, Poznań.
- 20. Gołębiowski L. (1831). Gry i zabawy różnych stanów w kraju całym lub niektórych tylko prowincyach, Glucksberg, Warszawa, reprint by WAiF, Warszawa 1983.
- 21. Guła-Kubiszewska H., Bieć E. (maj 2013). Seminarium Szkoleniowo-Dyskusyjne dla nauczycieli szkół podstawowych. Nowa jakość praktyk pedagogicznych, AWF, Wrocław.
- 22. Guła-Kubiszewska H., Bieć E. (styczeń 2014). Seminarium Szkoleniowo-Dyskusyjne dla nauczycieli gimnazjów. Nowa jakość praktyk pedagogicznych, AWF, Wrocław.
- 23. Guła-Kubiszewska H., Lewandowski M. (2007). Jak rozwijać samowiedzę uczestników kultury fizycznej, AWF, Wrocław.
- 24. Guła-Kubiszewska H., Lewandowski M., Bieć E. (maj-czerwiec 2011). Seminarium Szkoleniowo-Dyskusyjne dla nauczycieli szkół podstawowych. Nowa jakość praktyk pedagogicznych, AWF, Wrocław.
- 25. Guła-Kubiszewska H., Lewandowski M., Bieć E. (luty 2012). Seminarium Szkoleniowo-Dyskusyjne dla nauczycieli gimnazjów. Nowa jakość praktyk pedagogicznych, AWF, Wrocław.
- 26. Guła-Kubiszewska H., Lewandowski M., Bieć E. (maj 2012). Seminarium Szkoleniowo-Dyskusyjne dla nauczycieli szkół podstawowych. Nowa jakość praktyk pedagogicznych, AWF, Wrocław.
- Guła-Kubiszewska H., Lewandowski M., Bieć E. (listopad 2012-luty 2013). Seminarium Szkoleniowo-Dyskusyjne dla nauczycieli gimnazjów. Nowa jakość praktyk pedagogicznych, AWF, Wrocław.
- 28. Gurvitch R., Metzler M.W. (2009). The effects of laboratory-based and field-based practicum experience on pre-service teachers' self-efficacy. *Teaching and Teacher Education*, 25, 437–443.
- 29. Hill G., Brodin K.L. (2004). Physical education teachers' perceptions of the adequacy of university course work in preparation for teaching. *Physical Educator*, 61(2), 75–87.
- 30. Holmes Group Report (1986). Tomorrow's teachers: A report of the Holmes Group, East Lansing.

- 31. Johnson J.S. (1982). What to do when the student teacher arrives. *Kappa Delta Pi Record*, 18(4); 98–104, 114.
- 32. Komar W. (2000). Współczesność i nauczyciel perspektywy edukacji bez dogmatów. Żak, Warszawa.
- 33. Kuiper E., Volman M., Terwel J. (2009). Developing web literacy in collaborative inquiry activities. *Computers and Education*, 52(3), 668–680.
- 34. Larson A. (2005). Preservice teachers' field experience surprises: Some things never change. *Physical Educator*, 62(3), 154–163.
- Lewandowski M., Guła-Kubiszewska H. (2013a). Dziennik praktyki pedagogicznej. Gimnazjum, rok szkolny 2013/2014, Wrocławskie Towarzystwo Naukowe, Wrocław.
- Lewandowski M., Guła-Kubiszewska H. (2013b). Dziennik praktyki pedagogicznej. Wychowanie fizyczne, szkoła podstawowa (klasy I–VI), rok szkolny 2013/2014, Wrocławskie Towarzystwo Naukowe, Wrocław.
- MacPhail A., Tannehill D., Karp G.G. (2013). Preparing physical education preservice teachers to design instructionally aligned lessons through constructivist pedagogical practices. *Teaching* and *Teacher Education*, 33, 100–112.
- Mitchell J., Clarke A., Nuttall J. (2007). Cooperating teachers' perspective under scrutiny: A comparative analysis of Australia and Canada. *Asia-Pacific Journal of Teacher Education*, 35(1), 5–25.
- 39. Nęcki Z. (2000). Komunikacja międzyludzka, Antykwa, Kraków.
- 40. Oczko W. (1581). O różnych przypadłościach ciała ludzkiego, Kraków.
- OECD (2005). Teachers matter: Attracting, developing and retaining effective teachers, OECD, Paris.
- 42. Ordinance of the Minister of National Education and Sport on the framework curricula in public schools, dated February 12, 2002 (2002), Journal of Laws No. 15, item 142.
- 43. Ordinance of the Minister of National Education on the terms and methods of assessment, classification and promotion of students, as well as conducting tests and exams in public schools, dated April 30, 2007 (2007), Journal of Laws No. 83, item 562.
- Pilch T., Bauman T. (2010). Zasady badań pedagogicznych. Strategie ilościowe i jakościowe, Żak, Warszawa.
- 45. Pontecorvo C. (2007). On the conditions for generative collaboration: learning through collaborative research. *Integrative Psychology and Behavioral Sciences*, 41(2), 178–186.
- 46. Sendłak S. (2013). Przygotowanie zawodowe studentów akademii wychowania fizycznego po monitorowanej praktyce w szkole podstawowej, master thesis, AWF, Wrocław.
- 47. Sherrill C. (2006). Service learning, practicums, internships: Issues in professional preparation. *Palaestra*, 22(4), 55–56.
- 48. Should apprenticeship be embraced as a viable alternative route to becoming a physical education teacher? (2008). *The Journal of Physical Education, Recreation & Dance*, 79(6), 14–15.

- 49. Slick S. (1998). Assessing versus assisting: the supervisor's role in the complex dynamics of the student teacher triad. *Teacher and Teacher Education*, 13(7), 713–726.
- 50. Ustawy Kommissyi Edukacyi Narodowey dla stanu akademickiego i na szkoły w kraiach Rzeczypospolitey przepisane (1783). Kancelaria Komisji Edukacji Narodowej. Metryka Litewska, sec. IX, No. 100. [In:] Tync S. (1954). Komisja Edukacji Narodowej. Pisma Komisji i o Komisji. Wybór źródeł, Ossolineum, Wrocław.
- 51. Woolfolk-Hoy A. (2000). Changes in efficacy during the early years of teaching. Paper presented at the American Educational Research Association, New Orleans.
- 52. Wroczyński R. (2003). Powszechne dzieje kultury fizycznej i sportu, Wydawnictwo BK, Wrocław.
- 53. Zeichner K. (1992). Rethinking the practicum in the professional development school partnership. *Journal of Teacher Education*, 43(4), 296–307.
- 54. Zuba R. (2005). Po co nam superwizja, Praca Socjalna, 3.

List of Figures

Figure 5.1. Differences among respondents' opinions for question 1: *How do you evaluate the primary (lower secondary) school practicum program for physical education teachers? Please mark on the scale.*

Figure 5.2. Differences among respondents' opinions for question 3: *How do you evaluate the primary (lower secondary) school practicum journal for physical education teachers? Please mark on the scale.*

Figure 5.3. Differences among respondents' opinions for question 5: *How do you evaluate the primary (lower secondary) school practicum program for compensation and corrective gymnastics teachers? Please mark on the scale.*

Figure 5.4. Differences among respondents' opinions for question 7: *How do you evaluate the journal used in the primary (lower secondary) school practicum program for compensation and corrective gymnastics teachers? Please mark on the scale.*

Figure 5.5. Differences among respondents' opinions for question 9: *How do you assess the proposed tool to evaluate the course of the practicum: monitoring sheet used in the primary school practicum program*?

Figure 5.6. Differences among opinions of the surveyed students, school teachers, and academic teachers with respect to practicum programs and journals used for physical education, and compensation and corrective gymnastics, as well as to practicum monitoring sheets for all the results.

Figure 5.7. Differences among opinions of the surveyed students, school teachers, and academic teachers with respect to practicum programs and journals used for physical education, and compensation and corrective gymnastics, as well as to practicum monitoring sheets in primary and lower secondary schools.

Figure 5.8. Opinions of the surveyed students of particular years on practicum programs and journals used for physical education, and compensation and corrective gymnastics, as well as on practicum monitoring sheets in primary and lower secondary schools.

Figure 5.9. The opinions of the surveyed school teachers of particular years on practicum programs and journals used for physical education, and compensation and corrective gymnastics, as well as on practicum monitoring sheets in primary and lower secondary schools.

Figure 5.10. The opinions of the surveyed academic teachers of particular years on practicum programs and journals used for physical education, and compensation and corrective gymnastics, as well as on practicum monitoring sheets in primary and lower secondary schools.

Figure 5.11. Mean percentage values of knowledge level indicators before the practicum and after the practicum in primary schools, and the percentage value of the knowledge change indicator.

Figure 5.12. Mean percentage values of knowledge level indicators before the practicum and after the practicum in lower secondary schools, and the percentage value of the knowledge change indicator.

Figure 5.13. Differences among the percentage values of knowledge level indicators knowledge change indicators.

Figure 5.14. Differences among the percentage values of knowledge level indicators and knowledge change indicators.

Figure 5.15. Differences among the percentage values of knowledge level indicators obtained before and after practicums in primary schools and lower secondary schools, and knowledge change indicators.

Figure 5.16. Mean values of students' self-assessments for the monitored physical education and compensation and corrective gymnastics lessons.

Figure 5.17. Mean values of the grades given to the students by school teachers for the monitored physical education and compensation and corrective gymnastics lessons.

Figure 5.18. Mean values of the grades given to the students by academic teachers for the monitored physical education and compensation and corrective gymnastics lessons.

Figure 5.19. Mean values of the final grades given to the students for physical education (PE) and compensation and corrective gymnastics (C&CG), and of the final practicum grades.

List of Tables

Table 5.1. Students, and school and academic teachers taking part in the execution of teacher practicums held as part of the *New Quality of Teacher Practicums* project in years 2011–2013 in primary schools and in years 2012–2014 in lower secondary schools

Table 5.2. Students completing teacher practicums as part of the *New Quality of Teacher Practicums* project in years 2011–2013

Table 5.3. A sample grade sheet with partial grades received by students for monitored/ supervised lessons, and with final grades

Table 5.4. Numbers of questions in individual tests on general teaching knowledge and the methodology of physical education, and compensation and corrective gymnastics

Table 5.5. Knowledge test results achieved by all the tested students before and after the primary school practicums, by study years

Table 5.6. Knowledge test results achieved by all the tested students before and after the lower secondary school practicums, by study years

Table 5.7. Factor analysis of students' self-assessments and partial grades in monitored classes given by school teachers and academic teachers, and overall final practicum grades for primary and lower secondary school practicums

Table 5.8. Values of the Pearson's r coefficient for the correlation among knowledge levels and changes in the knowledge levels in students and final practicum grades in primary and lower secondary schools for physical education and compensation and corrective gymnastics, and overall final practicum grade

(the following two tables are integral parts of the presented regulations)

Table 1. Criteria for selecting physical education, and compensation and corrective gymnastics teachers to hold the position of the supervised teacher practicum tutor in primary and lower secondary schools for the base course (physical education) and the additional course (compensation and corrective gymnastics)

Table 1. Criteria for selecting academic teachers to hold the position of the teacher practicum tutor in primary and lower secondary schools for the base course (physical education) and the additional course (compensation and corrective gymnastics)

APPENDICES

APPENDIX 1

List of schools participating in the project

No	School		f students sig ool in the aca	
		2011/2012	2012/2013	2013/2014
1	Bilingual Primary School, 38 Zielińskiego St., Wrocław	2	2	4
2	Władek Zarembowicz Primary Sports School No. 72, 17–19 Trwała St., Wrocław	6	6	10
3	Fencing Sports Primary School No. 85, 37 Traugutta St., Wrocław	-	4	4
4	Maria Dąbrowska Primary School No. 1, 78 Nowowiejska St., Wrocław	7	6	6
5	Primary School No. 107, 64 Prusa St., Wrocław	-	2	2
6	J. Tuwim Primary School No. 108, 3 Chrobrego St., Wrocław	5	4	4
7	Pilot Colonel Boleslaw Orliński Primary School No. 118, 19 Bulwar Ikara St., Wrocław	6	8	10
8	Maria Skłodowska-Curie Primary School No. 12, 14 Janiszewskiego St., Wrocław	6	4	4
9	Princess Hedwig of Silesia Primary School No. 15, 13 Solskiego St., Wrocław	2	4	4
10	Primary School No. 2, 36–38 Komuny Paryskiej St., Wrocław	6	4	4
11	Primary School No. 20, 24 Kamieńskiego St., Wrocław	-	3	4
12	Primary School No. 22, 143 Stabłowicka St., Wrocław	3	0	2
13	Primary School No. 28, 59 Grecka St., Wrocław	_	6	6
14	Mariusz Zaruski Primary School No. 3, 27 Bobrza St., Wrocław	5	9	7
15	Primary School No. 30, 28 Zaporoska St., Wrocław	-	-	2
16	Primary School No. 37, 10 Sarbinowska St., Wrocław	2	2	0
17	Priest Jan Twardowski Primary School No. 39, 47 Przedwiośnie St., Wrocław	2	1	2
18	Primary School No. 46, 21 Ścinawska St., Wrocław	13	15	13

No	School		f students sig ool in the aca	
		2011/2012	2012/2013	2013/2014
19	Primary School No. 47, 35–37 Januszowicka St., Wrocław	2	1	6
20	Primary School No. 50, 58 Czeska St., Wrocław	8	6	8
21	Primary School No. 61, 8 Skarbowców St., Wrocław	1	3	4
22	Władysław Broniewski Primary School No. 64, 1 Wojszycka St., Wrocław	3	2	2
23	Leon Kruczkowski Primary School No. 71, 57 Podwale St., Wrocław	3	2	2
24	General Władysław Anders Primary School No. 73, 30 Gliniana St., Wrocław	-	2	2
25	Primary School No. 76, 13 Wandy St., Wrocław	6	6	5
26	Mikołaj Kopernik Primary School No. 78, 195 Jedności Narodowej St., Wrocław	-	4	4
27	Primary School No. 8, 105 Kowalska St., Wrocław	2	2	-
28	Millennial Wrocław Primary School No. 80, 4 Polna St., Wrocław	-	4	3
29	Wrocław Builders Primary School No. 82, 13 Blacharska St., Wrocław	2	2	4
30	Jan Kasprowicz Primary School No. 83, 32 Boya Żeleńskiego St., Wrocław	6	4	4
31	Primary School No. 84, 20 Górnickiego St., Wrocław	6	4	2
32	Primary School No. 90, 62 Orzechowa St., Wrocław	7	5	2
33	Lwów Eaglets Primary School No. 91, 54 Sempołowskiej St., Wrocław	3	4	4
34	White Eagle Tradition Primary School No. 93, 29/31 Niemcewicza St., Wrocław	2	2	1
35	Primary School No. 95, 66–68 Starogajowa St., Wrocław	3	-	1
36	Leonid Teliga Primary School No. 96, 2 Krakowska St., Wrocław	2	2	1
37	Wrocław Piasts Primary School No. 98, 22a Sycowska St., Wrocław	4	4	4
38	Educational Institution Complex No. 1, Primary School No. 42, 50 Wałbrzyska St., Wrocław	-	-	2
39	Nursery and Primary School Complex No. 1, Adam Rapacki Primary School No. 113, 16C Zemska St., Wrocław	5	2	5
40	Nursery and Primary School Complex No. 10, Primary School No. 27, 34 Rumiankowa St., Wrocław	4	4	4

No	School		f students sig ool in the aca	
		2011/2012	2012/2013	2013/2014
41	Nursery and Primary School Complex No. 12, Silesian Piasts Primary School No. 26, 5 Suwalska St., Wrocław	2	3	5
42	Nursery and Primary School Complex No. 13, Primary School No. 67, 20 Muzealny Square, Wrocław	-	2	4
43	Nursery and Primary School Complex No. 14, Primary School No. 24, 42 Częstochowska St., Wrocław	2	3	2
44	Nursery and Primary School Complex No. 15, Franciszek Juszczak Primary School No. 25, 38–44 Stanisławowska St., Wrocław	2	2	2
45	Nursery and Primary School Complex No. 17, Primary School No. 17, 105 Wieczysta St., Wrocław	-	4	4
46	Nursery and Primary School Complex No. 18, Primary School No. 18, 26 Poznańska St., Wrocław	-	2	-
47	Nursery and Primary School Complex No. 2, Primary School No. 38, 61 Horbaczewskiego St., Wrocław	2	2	2
48	Nursery and Primary School Complex No. 3, Primary School No. 10, 13 Inflancka St., Wrocław	6	4	6
49	Nursery and Primary School Complex No. 6, Primary School No. 34, 8 KI. Gałczyńskiego St., Wrocław	2	2	2
50	Nursery and Primary School Complex No. 7, Primary School No. 19, 2–4 Koszykarska St., Wrocław	2	1	-
51	Nursery and Primary School Complex No. 8, Primary School No. 58, 2–4 Składowa St., Wrocław	3	1	2
52	School Complex No. 10, Primary School No. 44, 31 Wilanowska St., Wrocław	4	2	2
53	School Complex No. 15, Primary School No. 36, 9B Chopina St., Wrocław	3	2	2
54	School Complex No. 20, Primary School No. 65, 36 Kłodnicka St., Wrocław	-	1	0
55	School Complex No. 21, Primary School No. 75, 28 P. Ignuta St., Wrocław	5	4	4
56	School Complex No. 7, Primary School No. 97, 16 Prosta St., Wrocław	3	2	2
57	School Complex No. 9, Primary School No. 45, 1 Krajewskiego St., Wrocław	5	4	4
58	Salesian Sisters' School Complex in Wrocław, 1–3 Franciszkański Square, Wrocław	3	-	-

No	School	for lower s	of students s secondary sc cademic yea	hool in the
		2011/2012	2012/2013	2013/2014
1	Bilingual Lower Secondary School No. 26, Comprehensive School Complex No. 5, 13 Grochowa St., Wrocław	3	2	2
2	Hugo Dionizy Steinhaus Lower Secondary School No. 1, 7 Jelenia St., Wrocław	13	13	13
3	Lower Secondary School No. 10 with Bilingual Forms, Comprehensive School Complex No. 3, 29/31 Piotra Skargi St., Wrocław	2	2	1
4	Stefan Batory Lower Secondary School No. 11, 31A Wilanowska St., Wrocław	-	1	2
5	European Union Lower Secondary School No. 13, 1/3 Reja St., Wrocław	12	10	7
6	Hugo Kołłątaj Lower Secondary School No. 14, 1/6 Kołłątaja St., Wrocław	5	5	5
7	Lower Secondary School No. 15, 117 Jedności Narodowej St., Wrocław	9	11	9
8	Andrzej Waligórski Lower Secondary School No. 16, 57 Jemiołowa St., Wrocław	4	4	3
9	Father Jan Twardowski Lower Secondary School No. 17, 2/24 Ślężna St., Wrocław	9	10	10
10	Home Army Lower Secondary School No. 18, 36 Kłodnicka St., Wrocław	18	14	18
11	Zbigniew Herbert Lower Secondary School No. 19, 39 Dembowskiego St., Wrocław	6	6	9
12	Józef Mackiewicz Lower Secondary School No. 2, 25 Gorlicka St., Wrocław	-	2	2
13	Prof. Alfred Jahn Lower Secondary School No. 20, 9 Pautscha St., Wrocław	4	3	3
14	Lower Secondary School No. 21, 4 St George St., Wrocław	-	-	10
15	Lothar Herbst Lower Secondary School No. 22, 95a Lubelska St., Wrocław	3	-	-
16	Wanda Rutkiewicz Lower Secondary School No. 23, 26 Jastrzębia St., Wrocław	6	5	4
17	Janusz Korczak Lower Secondary School No. 24, 59 Przybyszewskiego St., Wrocław	14	14	14

No	School	for lower s	of students s econdary sc cademic yea	hool in the
		2011/2012	2012/2013	2013/2014
18	Lower Secondary School No. 25, 62 Orzechowa St., Wrocław	2	6	2
19	Ossolineum Lower Secondary School No. 27, 40 Czeska St., Wrocław	4	3	5
20	Order of the White Eagle Knights Lower Secondary School No. 28, 2 Zachodnia St., Wrocław	2	4	4
21	The Constitution of May 3 Lower Secondary School No. 29, 1 Kraińskiego St., Wrocław	10	8	6
22	Olympic Champions Lower Secondary School No. 3, 12A Świstackiego St., Wrocław	-	2	-
23	The Polish Community in France Lower Secondary School No. 30, 5 Jantarowa St., Wrocław	2	2	2
24	Lower Secondary School No. 31, 64 Szkocka St., Wrocław	-	1	2
25	Lower Secondary School No. 34, 16 Zemska St., Wrocław	3	3	2
26	Lower Secondary School No. 37, School Complex No. 18, 58 Młodych Techników St., Wrocław	4	6	3
27	Commission of National Education Lower Secondary School No. 38, School Complex No. 4, 210/218 Powstańców Śląskich St., Wrocław	4	6	6
28	Lower Secondary School No. 39, 12 Brücknera Ave., Wrocław	4	2	4
29	Holy Father John Paul II Lower Secondary School No. 4, 14 Paulińska St., Wrocław	3	3	6
30	Polish Noble Prize Winners Lower Secondary School No. 40, 43 Morelowskiego St, Wrocław	2	4	4
31	Lower Secondary School No. 49 with Bilingual Forms, School Complex No. 14, 10 Brücknera Ave., Wrocław	10	6	5
32	Cyprian Kamil Norwid Lower Secondary School No. 5, 15 Iwana Pawłowa St., Wrocław	18	12	12
33	Lower Secondary School No. 6, 24 Aleja Pracy, Wrocław	2	2	2
34	The Coat of Arms of Wrocław Tradition Lower Secondary School No. 7, 17 Kolista St., Wrocław	10	8	6
35	Lower Secondary School No. 9, 10 Sarbinowska St., Wrocław	4	6	6



Wrocław University School of Physical Education, 35 I.J. Paderewskiego Ave., 51-612 Wrocław The project office: 25 Witelona St., room 012, 51-617 Wrocław email: projekt.praktyki@awf.wroc.pl tel./fax 713473170

APPENDIX 2

PRIMARY SCHOOL PRACTICUMS IN THE ACADEMIC YEAR/..... Survey for evaluating teacher practicums conducted as part of the *New Quality of Teacher Practicums* project

Please provide honest and comprehensive answers. Your feedback will be used to modify the future practicums program. We hope that together we can develop a a fully operational system to prepare students to become teachers of physical education, and compensation and corrective gymnastics.

Please complete or tick

Age	sex F 🗆	М□
Student 🗆	School teacher \Box	Academic teacher \Box

In answers to closed questions, the following scale is used:

- 5 very highly rated,
- 4 highly rated,
- 3 I'm not sure / I have no opinion,
- 2 low rated,
- 1 very low rated.
- 1. How do you evaluate the elementary school practicums program for physical education teachers? Please mark on the scale.







 Wrocław University School of Physical Education, 35 I.J. Paderewskiego Ave., 51-612 Wrocław

 The project office: 25 Witelona St., room 012, 51-617 Wrocław

 email: projekt.praktyki@awf.wroc.pl

 tel./fax 713473170

2. What changes would you suggest in the elementary school practicums program for physical education teachers?

3. How do you evaluate the journal used in the elementary school practicums program for physical education teachers? Please mark on the scale.

4. What changes would you suggest in the journal used in the practicums program for physical education teachers?

•••••	•••••	 •••••	
	•••••	 	

5. How do you evaluate the elementary school practicums program for compensation and corrective gymnastics teachers? Please mark on the scale.







 Wrocław University School of Physical Education, 35 I.J. Paderewskiego Ave., 51-612 Wrocław

 The project office: 25 Witelona St., room 012, 51-617 Wrocław

 email: projekt.praktyki@awf.wroc.pl

6. What changes would you suggest in the elementary school practicums program for compensation and corrective gymnastics teachers?

7. How do you evaluate the journal used in the elementary school practicums program for compensation and corrective gymnastics teachers? Please mark on the scale.

8. What changes would you suggest in the journal used in the elementary school practicums program for compensation and corrective gymnastics teachers?

•••	• •	•••	•••	•••	•••	••	••	••	••	•••	•••	•••	•••	• •	••	•••	•••	•••	•••	•••	•	••	•••	•	•••	•••	•	••	•••	•••	•	•••	•••	•••	•••	•	•••	•••	•••	•••	•	• •	•••	•••	••	••	•••	•••	•••	•••	•••	••	••	••	•••	•••	•
•••	•••	•••	•••	•••	•••	••	••	••	••	•••	•••	•••	•••		••	••	•••	•••	•••	•••	•	•••	•••	•	•••	•••	•	•••	••	•••	•	•••	•••	•••	•••	••	•••	••	•••	•••	•	• •	•••	••	••	••	•••	•••	• •	•••	•••	••	••	••	•••	•••	
••	•••	•••	•••	•••	•	•••	•••	•••	•••	••	•••	••	••	•••	•••	•	•••	•••	•••	•••	•••	•••	•••	•	•••	•••	•••	••	•••	•••	•••	•	•••	••	•••	•••	•	•••	•••	••	•••	•••	•••	•••	•••	•••	•••	•••	•••	•••	••	••	••	••	•••	••	•

9. How do you assess the proposed tool to evaluate the course of the practicums: monitoring sheet used in the elementary school practicums program?







 Wrocław University School of Physical Education, 35 I.J. Paderewskiego Ave., 51-612 Wrocław

 The project office: 25 Witelona St., room 012, 51-617 Wrocław

 email: projekt.praktyki@awf.wroc.pl

 tel./fax 713473170

10. What changes would you suggest in the monitoring sheet used in the elementary school practicums program?







Project co-financed by the European Union funds under the European Social Fund Wrocław University School of Physical Education, 35 I.J. Paderewskiego Ave., 51-612 Wrocław The project office: 25 Witelona St., room 012, 51-617 Wrocław email: projekt.praktyki@awf.wroc.pl tel./fax 713473170

APPENDIX 3

LOWER SECONDARY SCHOOL PRACTICUMS IN THE ACADEMIC YEAR

Survey for evaluating teacher practicums conducted as part of the New Quality of Teacher Practicums project

Please provide honest and comprehensive answers. Your feedback will be used to modify the future practicums program. We hope that together we can develop a a fully operational system to prepare students to become teachers of physical education, and compensation and corrective gymnastics.

Please complete or tick

Age	sex F 🗆	М 🗆
Student 🗆	School teacher 🗆	Academic teacher \Box

In answers to closed questions, the following scale is used:

- 5 very highly rated,
- 4 highly rated,
- 3 I'm not sure / I have no opinion,
- 2 low rated,
- 1-very low rated.
- 1. How do you evaluate the lower secondary school practicums program for physical education teachers? Please mark on the scale.

5-4-3-2-1







 Wrocław University School of Physical Education, 35 I.J. Paderewskiego Ave., 51-612 Wrocław

 The project office: 25 Witelona St., room 012, 51-617 Wrocław

 email: projekt.praktyki@awf.wroc.pl

2. What changes would you suggest in the elementary school practicums program for physical education teachers?

3. How do you evaluate journal used in the lower secondary school practicums program for physical education teachers? Please mark on the scale.

4. What changes would you suggest in the journal used in the practicums program for physical education teachers?

5. How do you evaluate the lower secondary school practicums program for compensation and corrective gymnastics teachers? Please mark on the scale.







The project office: 25 Witelona St., room 012, 51-617 Wrocław

tel./fax 713473170

email: projekt.praktyki@awf.wroc.pl

6. What changes would you suggest in the elementary school practicums program for compensation and corrective gymnastics teachers?

7. How do you evaluate the journal used in the lower secondary school practicums program for compensation and corrective gymnastics teachers? Please mark on the scale.

8. What changes would you suggest in the journal used in the elementary school practicums program for compensation and corrective gymnastics teachers?

9. How do you assess the proposed tool to evaluate the course of the practicums: monitoring sheet used in the lower secondary school practicums program?

5-4-3-2-1









EUROPEAN UNION EUROPEAN SOCIAL FUND



Project co-financed by the European Union funds under the European Social Fund Wrocław University School of Physical Education, 35 I.J. Paderewskiego Ave., 51-612 Wrocław The project office: 25 Witelona St., room 012, 51-617 Wrocław email: projekt.praktyki@awf.wroc.pl tel./fax 713473170

10. What changes would you suggest in the monitoring sheet used in the lower secondary school practicums program?







 Wrocław University School of Physical Education, 35 I.J. Paderewskiego Ave., 51-612 Wrocław

 The project office: 25 Witelona St., room 012, 51-617 Wrocław

 email: projekt.praktyki@awf.wroc.pl

 tel./fax 713473170

APPENDIX 4

Wrocław, on

Student knowledge assessment questionnaire to perform the tasks of physical education teacher practicums in primary school as part of the *New Quality of Teacher Practicums* project

Student's Full Name Album No..... Education Level (please circle): a/ Primary School before practicums b/ Primary School after practicums

Please complete the following assertions related to the knowledge and practical experience necessary to carry out the process of physical education at school during the teacher practicums. The aim of this survey is to recognize the state of your theoretical preparation for the professional role of physical education teacher. Please complete the following assertions.

COMPLETE THE ASSERTIONS BY INSERTING A SELECTED ANSWER SYMBOL (a, b, c)

- 1. Physical culture includes aimed at human body, the values associated with shaping the body, which define goals and ways to develop various body competences for the individual members of communities.
- a) effects of these behaviours
- b) meaning patterns, effects of these behaviours
- c) meaning patterns







- 2. A physical education teacher is a, organizer of the axiologically rich teaching situations, provoking pupils to choose the values and take decisions with respect to their own bodies.
- a) movement teacher
- b) sporting behaviour guide
- c) guide to the world of values
- 3. In the Polish education system, the core curriculum sets the standards for the knowledge and skills required at the end of a given education level in the form of teaching effects, and describes of education.
- a) competences at every stage
- b) effects of teaching on selected levels
- c) effects of teaching after every stage
- 4. The and pedagogical objectives refer to the intended shaping of one's positive attitudes towards their own body and its needs.
- a) directional
- b) instrumental
- c) operational
- 5. The and teaching objectives pertain to the knowledge, skills, habits, abilities and intelligence.
- a) directional
- b) instrumental

c) operational







email: projekt.praktyki@awf.wroc.pl

6. The of pedagogical diagnosis are: individual diagnosis, group diagnosis, environmental diagnosis.

tel./fax 713473170

- a) scopes
- b) phases
- c) contents
- 7. The diagnosis consists in the recognizing, among others, one's ability to independently control their own fitness development and rest in their free time.
- a) individual
- b) environmental
- c) group
- 8. The diagnosis allows to recognize the compactness of a social group and the interaction between its members, the existence of informal social groups, and groups of students with special needs.
- a) individual
- b) environmental
- c) group
- 9. A lesson plan contains a detailed description of the planned course of the lesson: the lesson's topic, lesson's objectives, teaching and education tasks, teaching methods, organizational forms, educational resources, the planned homework assignment.
- a) framework
- b) outline
- c) detailed cycle plan









EUROPEAN UNION EUROPEAN SOCIAL FUND



Project co-financed by the European Union funds under the European Social Fund Wrocław University School of Physical Education, 35 I.J. Paderewskiego Ave., 51-612 Wrocław The project office: 25 Witelona St., room 012, 51-617 Wrocław email: projekt.praktyki@awf.wroc.pl tel./fax 713473170

- 10. Class inspection requires to visit school classes to examine them and possibly assess them.
- a) a school headmaster
- b) an educational authorities inspector
- c) teachers or representatives of the school authorities
- 11. The course of the inspection: writing down any formal class information, writing down lesson objectives and tasks,, noting questions useful for further lesson analysis.
- a) drafting comments on the lesson course
- b) drafting the class scenario and writing down your own observations
- c) drafting the notes on the lesson course supplemented by your own observations
- 12. Types of inspection in the context of: auditing and evaluating inspection, advisory and perfecting inspection, diagnostic inspection.
- a) measuring the quality of work at school
- b) measuring the effects of teaching at school
- c) measuring the quality of work of teachers
- 13. The inspection: the evaluation of a teacher's performance is based on student achievements; they are treated as an indicator of the effectiveness of the pedagogical efforts.
- a) auditing and evaluating
- b) diagnostic
- c) advisory and perfecting







14. The inspection requires observing: the teacher's skills and tools, how they plan the work, what the lesson framework is, what teaching means are used, what the degree of the teaching individualization is, how they motivate students, whether they rate properly.

- a) auditing and evaluating
- b) diagnostic
- c) advisory and perfecting
- 15. The inspection is an observation together with an evaluation of the teacher's performance.
- a) auditing and evaluating
- b) diagnostic
- c) advisory and perfecting









EUROPEAN UNION EUROPEAN SOCIAL FUND



Project co-financed by the European Union funds under the European Social Fund Wrocław University School of Physical Education, 35 I.J. Paderewskiego Ave., 51-612 Wrocław The project office: 25 Witelona St., room 012, 51-617 Wrocław email: projekt.praktyki@awf.wroc.pl tel./fax 713473170

APPENDIX 5

Wrocław, on

Student knowledge assessment questionnaire to perform the tasks of compensation and corrective gymnastics teacher practicums in primary school as part of the *New Quality of Teacher Practicums* project

Student's Full Name Album No..... Education Level (please circle): a/ Primary School before practicums b/ Primary School after practicums

Please complete the following assertions related to the knowledge and practical experience necessary to carry out the process of compensation and corrective gymnastics at school during the teacher practicums. The aim of this survey is to recognize the state of your theoretical preparation for the professional role of compensation and corrective gymnastics teacher. Please mark the correct answers.

- 1. The visual assessment of a body posture should begin with:
- a) assessment of the position of the pelvis in the frontal and torsional plane, of the selected bone points of the frontal sagittal plane;
- b) assessment of the selected bone points in the sagittal plane;
- c) assessment of the selected bone points in the frontal plane.







2. The FMS test can be used to evaluate:

email: projekt.praktyki@awf.wroc.pl

- a) the functional state of the dynamic locomotor system;
- b) the functional state of the static locomotor system;
- c) the functional state of the lower limbs.

3. The proper body posture depends on:

- a) the correct shape of the bone-ligament system of the viable and well functioning nervous system;
- b) life style, proper posture;
- c) balance of the body in the sagittal and frontal plane.
- 4. The proper body posture ensures:
- a) movement economics, and an aesthetic appearance;
- b) optimal stability, movement economics, the proper functioning of internal organs, and an aesthetic appearance;
- c) optimal stability, and an aesthetic appearance.

5. The strategy of muscle re-education leads to:

- a) motor activity improvement (greater precision, limiting motor errors), persistence (limiting the variance), steady progress of the movement performance quality;
- b) improvement of the body aesthetics;
- c) motor activity improvement only.





tel./fax 713473170



tel./fax 713473170

APPENDIX 6

email: projekt.praktyki@awf.wroc.pl

Student knowledge assessment questionnaire to perform the tasks of physical education teacher, and compensation and corrective gymnastics teacher practicums in a lower secondary school

Wrocław, on

Student's Full Name a) Lower secondary school before practicums b) Lower secondary school after practicums

Please complete the following assertions related to the knowledge and practical experience necessary to carry out the process of physical education at school during the teacher practicums. The aim of this survey is to recognize the state of your theoretical preparation for the professional role of physical education teacher.

COMPLETE THE ASSERTIONS BY INSERTING A SELECTED ANSWER SYMBOL (a, b, c) OR CIRCLE THE CORRECT ANSWER

- 1. Lesson a lesson variant in which arrangement takes into account the ratio of teaching units and the degree of their implementation: delivery, perfecting, control, mixed.
- a) kind
- b) type
- c) design







- 2. Physical education classes these are aimed at carrying out physical education (by implementing the changes in the body structure and functions in students, as well as acquiring knowledge, skills and habits in physical culture), and school youth upbringing (associated with the formation of positive attitudes towards physical culture values).
- a) physical activities
- b) any didactic scenarios
- c) deliberately organized didactic and teaching scenarios
- 3. The main task of a lesson lesson subject the message about what will give indication about teaching.
- a) student behaviour
- b) teacher actions
- c) goal planned by the teacher
- 4. Specific features of particular operational objectives, namely the principles of formulating specific tasks:

are framed in terms of a student (one has to specify what the student will be taught, what they will do, what they will learn during the lesson), describe what the student will be able to do and what they will know after the learning process is completed (sets the goal for the student to achieve), list the constraints which must be met (necessary restraints of the task: time, space, distance, repetitions, tempo, rhythm, auxiliaries), specify the student's (with regard to directional dispositions: the student suggests, accepts, engages, and instrumental dispositions: the student will execute, explain, describe).

- a) forms of behaviour
- b) attitude
- c) abilities







- 5. The task in terms of skills in a lesson: it is desirable that the ability being taught is divided into a number of parts (elements), important from the learning and teaching perspective, so that the student could gradually interiorize material in subsequent lessons.
- a) teaching
- b) improving
- c) verifying

6. The task in terms of skills – in a lesson:

the newly learned locomotor activity should be applied in the new situation, associated with sports, recreational, artistic or health activities.

- a) teaching
- b) improving
- c) verifying
- 7. The task in terms of knowledge: we describe communicated to the student during the classes for the student to interiorize them in the lesson unit.
- a) the information known to the student
- b) any information
- c) new information
- 8. For the motor tasks we should identify the objective one selected for which we will devote special attention to in the form of an increased number of activities developing it, and present a program through which we intend to achieve the objective.
 a) motor ability
- b) motor feature
- c) motor skill







- 9. The task of becoming independent when describing the task one should first define, and then present specific actions to be performed by each student during classes which will change their posture in an indicated direction.
- a) an educational intention
- b) a didactic intention
- c) a pedagogic intention
- 10. The of a physical education class comprises of the initial part (10–15 minutes), the main part (25–30 minutes), and the closing part (3–5 minutes) of the lesson.
- a) course
- b) structure
- c) outline
- 11. The methods of conducting motor tasks can be divided in three groups: reproductive methods, methods, and creative methods.
- a) proactivating
- b) productive
- c) proactive
- 12. Forms of working with students:, forms of dividing students, and forms of conducting classes.
- a) forms of correcting behaviour
- b) forms of shaping students' behaviour
- c) forms of practicing









EUROPEAN UNION EUROPEAN SOCIAL FUND



Project co-financed by the European Union funds under the European Social Fund Wrocław University School of Physical Education, 35 I.J. Paderewskiego Ave., 51-612 Wrocław The project office: 25 Witelona St., room 012, 51-617 Wrocław email: projekt.praktyki@awf.wroc.pl tel./fax 713473170

- 13. The proper body posture depends on:
- a) the proper locomotor system structure
- b) the proper structure and function of osteoarticular, musculo-ligamentous, nervous and circulatory systems
- a) the proper structure and function of the locomotor system
- 14. The stability of the lumbar spine is conditioned by the proper function of:
- a) the multifidus muscle, the transverse abdominal muscle, and the oblique and rectus abdominis muscles
- b) the oblique and rectus abdominis muscles
- c) the latissimus dorsi muscle, the rectus abdominis muscle, and oblique muscles
- 15. The Mennell's test assesses the muscular imbalance within:
- a) the hip joint area
- b) the knee joint area
- c) shoulder joints
- 16. The FMS test can be used to assesses:
- a) the functional state of the locomotor system
- b) the functional state of the locomotor system, and determine a dysfunction, and an emerging compensation
- c) body balance



