Current Issues in Comparative and School Pedagogy

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Background Information about the Subject

Number of Direct Training Hours: 1 lecture + 1 seminar/week

When Taught: 4th year, 8th term
Prerequisites: practical placement 1

Introduction to the Subject (Summary)
The subject ‘Current Issues in Comparative and School Pedagogy’ focuses on the understanding, cooperation and reflection of students and application of their knowledge in comparative and school pedagogy (education) with an emphasis on selected aspects of the Czech school system as viewed by comparative and school pedagogy. This subject is based both on theoretical and practical issues with regard to the target group, in particular to undergraduate teaching students within their preparatory training and educators within their continuing education. The main outcomes of this subject also correspond to its theoretical and practical scope:

- didactic test;
- design and defence of an educational project and application for a subsidy with reference to the knowledge obtained in the field of comparative and school pedagogy (in groups of 3–4 members);
- comparison of self-evaluation of the school where you were placed with self-evaluation (or your own evaluation) of the school where another student was placed (in pairs, referring to practical placement 1).

This subject takes it thematic focus primarily from: 1. selected comparative indicators provided in OECD’s comparative studies (‘Education at a Glance’) or selected international comparative research; 2. selected current issues in school pedagogy (education); 3. current needs for the development of skills to formulate projects and applications for subsidies for the purpose of educational exchanges or study stays of secondary school and university students and the support of mobility of students and educators, etc.

Subject Objectives
See Chapter 1: Introduction, Appendix 1, and the objectives specified at the beginning of each chapter.

Outline of the Subject
See the table of contents of this study text.
Meaning of icons used in the text

- **Objectives**
  A list of objectives is provided at the beginning of each chapter.

- **Terms to Remember (Key Words)**
  A list of important terms and main points that the student should not omit when studying the topic.

- **Review Questions**
  Verifying to what extent the student has understood the text and the issue and remembers fundamental and important information.

- **Knowledge-Broadening and Practical Tasks**
  These assignments broaden the student’s knowledge and provide for the application of the theoretical knowledge in practice.

- **Summary**
  A summary of the topic.

- **Literature**
  Used in the text and to complement and further one’s knowledge.
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1 Introduction: Characteristics of the Study Text and Concept of the Subject

This study text is primarily designed for students preparing for teaching in higher basic school classes (2nd stage of basic school) and in secondary schools, as well as for existing and potential teachers at these levels of education. It offers an overview of core competencies related to selected current issues in school and comparative pedagogy.

This study text basically pursues the main line of different themes (see the Table of Contents and Outline of the Subject above) which we have found important with respect to current educational trends, such as:

- internationalisation and globalisation (strengthening of the international dimension) in education;
- the growing importance and support of the mobility of learners and educators; the scope of such themes is appropriate for the target group and the given subject.

This study text is outlined as part of the crucial study support documentation in the given subject with regard to the revamped syllabus (for additional details about the structure of this text, see chapter 1.1.1).

1.1 Study Text Structure

In addition to the introduction (chapter 1) and conclusion (chapter 13), this study text has the following structure:

- Chapters 2–4 characterise and give an overview of the main sources of information in comparative pedagogy;
- The following eight chapters (chapter 5–12) are divided into two parts: Part I: Czech Schools in International Comparisons (chapters 5–9); Part II: Current Issues in School Pedagogy (chapters 10–12).

Chapter 2 (Comparative and School Pedagogy in Terms of Benefits and Use) has two sub-chapters. By placing an emphasis on student-teachers, it characterises comparative pedagogy from the viewpoint of potential users of both disciplines (sub-chapter 2.1); sub-chapter 2.2 specifies the functions and possibilities of using comparative and school pedagogy.

Chapter 3 (List of Main Sources of Information and Institutions Relevant to Comparative Pedagogy) points to the main Czech and international sources or institutions which can serve everybody seeking (online) information on comparative and international school pedagogy. For instance, these sources can help student-teachers in their production of final papers or when looking for suitable partners or providers of programmes supporting the
mobility of students, educators and graduates in general, etc. The presentation of international sources includes, for instance, 'Eurydice', 'Eurypedia', 'ReferNet', 'Education at a Glance', 'CRELL', etc. As for the Czech educational environment, students are given information related to the National Institute for Education (Národní ústav pro vzdělávání, NÚV), the Information System about Labour Market Participation of Graduates (ISA+), the Methodology Portal RVP.CZ, the Europass National Centre, etc. Students may also find inspiration for their work in the information provided by the National Agency for European Education Programmes (NAEP).

Chapter 4 (Other Sources: List of Current International Comparative Studies) gives another precious source of information about comparative and international school pedagogy: international research. The basic characteristics of the focus of the following research (denoted with their acronym and year) are provided: ICCS 2009, PIRLS 2011, TIMSS 2011, PISA 2012, ICILS 2013 and PIAAC 2010–2013. Students are also urged to become more familiar with international research focusing on teachers: TEDS-M and TALIS.

Chapter 5 (Education in the Czech Republic in Terms of National Terminology, International Priorities, Principles and Tools) presents the Czech system of education using the national terminology and expands this knowledge with information on international priorities, principles and tools. Sub-chapter 5.1 contains an overview of both schools and other types of school facilities in the Czech Republic. Sub-chapter 5.2 introduces the International Standard Classification of Education (ISCED 1997) and sub-chapter 5.3 presents its revised version, ISCED 2011. In sub-chapter 5.2, ISCED 1997 is applied to the Czech school system presented in the text with regard to the ISCED levels (typical age of learners/students, duration of study programmes, types of education, etc.). Sub-chapter 5.4 presents another tool of international comparisons: OECD indicators.

In Chapter 6 (Content of Education in the Czech Republic in International Comparisons), students gain an insight into the composition of the basic subjects taught at individual levels of education. Attention is paid to the subjects taught, their international comparison, the differences or similarities in the allocation of time spent on teaching individual subject groups, etc. The following subjects have been selected: language and literature, science, foreign languages, physical education.

Chapter 7 (The Czech Learner from the Perspective of Selected Comparative Indicators) monitors the period when learners (pupils) are obliged to attend school, the situation in different countries in respect of the
age at which they enter primary education, and the time they spend on lessons per year in selected OECD countries and the EU.

Chapter 8 (*Education Expenditure in the Czech Republic in International Comparisons*) provides an insight into educational comparisons of the Czech Republic with respect to education expenditure. The text is based on OECD Indicators B1–B7. Students are provided with information to be able to make comparisons of various aspects and selected indicators of the rate of education spending in OECD or EU countries. The most attention is given to Indicator B1: ‘How much is spent per student?’ The text compares the average annual education expenditure along with expenditures related to actual (core) instruction, research and development. A brief comparison of spending relative to GDP in individual countries is provided. Many interesting issues can be seen in this area (see the expenditure relative to GDP in Portugal). After studying this text, students will find that any comparisons in this area can be easily misinterpreted due to the factors serving as statistical inputs. The course of education spending since 1995 is outlined at the end of the chapter.

Chapter 9 (*The Czech Teacher Viewed from the Perspective of Selected Comparative Indicators*) offers information to students and readers in respect of the following issues: Who are foreign teachers as compared to Czech teachers in terms of age and sex? What is the typical student-teacher ratio abroad and what is the classroom size? How much are Czech teachers paid as compared to teachers abroad? What is the structure of the working hours of Czech teachers as compared to their foreign (future potential) colleagues?

Chapter 10 (*School as an Object and Place of Changes: Basic Findings on the Theory of Educational Changes*) provides information about the term ‘educational change’ (change in education) from the perspective of selected international theories. The basic types of educational changes are defined. Attention is also given to the manner in which an educational change is introduced and communicated and to the related terms (i.e. initiation, institutionalisation, change heterogeneity, stages of the change cycle (or of the course of the change)). This chapter also points to the conditions which can facilitate or complicate the course of changes. Chapter 9 continues the issue of selected theoretical findings related to educational changes, presenting the issue of school self-evaluation, which is in fact a specific example of a change in the Czech Republic.

As indicated above, chapter 11 (*School Self-evaluation in the Czech Republic and Inspiration from Abroad*) is centred on the issue of school evaluation, in particular on internal evaluation (‘school self-evaluation’). In
addition to educational changes, school self-evaluation is viewed from the perspective of both school pedagogy and modern education. This chapter is divided into sub-chapters. Sub-chapters 11.1–11.2 explain the reasons for this issue’s topicality and define school self-evaluation as an educational term. Sub-chapter 11.3 gives an optimal course for a change. Sub-chapters 11.4–11.5 introduce the current support possibilities of Czech schools (11.5), including inspiration from abroad (11.4). The final sub-chapter draws attention to certain methodological options, including specific self-evaluation tools or good-practice examples.

Chapter 12 (Options for Funding Educational Activities: Subsidy Programmes, Grants) aims at describing possible funding options for educational and education-related activities. Fund-raising through grants and projects currently forms an integral part of the life of every school. This chapter offers an inspiration as to from which subsidy programmes and for which activities funds can be drawn and gives a brief outline of the general principles for writing a grant application. There are a variety of calls within individual subsidy programmes and they differ both in time and content, and reflect the current needs of the given area and time, which is why any specific subsidy programme must always be studied individually and in detail.

The following sections form an important part of this text:

- list of terms to remember;
- review questions;
- knowledge-broadening and practical tasks;
- summary;
- index – final summary of key terms;
- list of references

1.2 Subject Concept

The subject ‘Current Issues in Comparative and School Pedagogy’ is outlined so as to familiarise students with the current sources and selected findings of comparative and school pedagogy with an emphasis on the crucial themes and current issues in the modern Czech and international educational environment. Its main aim is to facilitate a more detailed understanding of the current educational environment with respect to its comparison to school practice abroad from the perspective of selected aspects.

Its main objective is the student’s development in comparative and school pedagogy with an emphasis on:

a) selected aspects of the Czech Republic’s school system from the perspective of comparative pedagogy;
b) selected current issues in school pedagogy, primarily including the following topics: educational changes and school (self-)evaluation representing both the change and a means to change.

The specific subject objectives are formulated from the students’ perspective:

Students:
1. become familiar with the basic findings about comparative pedagogy as a basic educational discipline;
2. gain an insight into the basic current sources on comparative pedagogy;
3. actively work with sources on comparative pedagogy;
4. cooperate with other prospective teachers in the given area;
5. compare selected aspects of the Czech education system with school practice abroad;
6. deepen their understanding of the current Czech educational environment in relation to the international context;
7. know the advantages and disadvantages of selected evaluation tools within school self-evaluation;
8. effectively work within the field of comparative pedagogy and use the relevant sources;
9. apply the knowledge and skills acquired in the formulation of educational projects, subsidy applications, etc. when seeking suitable schools for international cooperation or to support student mobility, etc.;
10. draw conclusions and make potential recommendations for school practice;
11. look for any links between the Czech and European educational policies;
12. are critical about and discuss the current problems in education within the international context.

The specific subject objectives are also characterised by the teaching skills and competencies developed (see the table in Appendix 1).
After studying this chapter:
- You will be able to briefly characterise school and comparative pedagogy and the approach to these disciplines in this study text.
- You will have an insight into who can use comparative and school pedagogy.
- You will be able to name and explain the main functions of comparative and school pedagogy.

### Terms to Remember (Key Words)

| - users of comparative pedagogy | functions of school pedagogy: |
| - users of school pedagogy | - interventional |
| | - informative |
| | - propaedeutic |
| | - motivational |
| | - description |
| | functions of comparative pedagogy: |
| | - interventional |
| | - informative |
| | - propaedeutic |
| | - evaluating |
| | - prognostic |
| | - motivational |

In this chapter we will think about who can use the educational disciplines discussed in this text, i.e. comparative and school pedagogy, and in what manner. First, we will start with a look at the professional and interest groups that can benefit from the findings and skills defined by:

- 1. **the basic educational discipline – comparative pedagogy** (comparative education) within the meaning of the ‘sum of theories and research activities concerned with the characterising and functioning of educational systems in various countries, their description, comparisons and evaluations’ (Průcha, 2006, p. 19).

- 2. **the applied educational discipline – school pedagogy** (school education) within the meaning of a subject focusing on the development of teachers, their skills and the competencies necessary for the performance of their everyday professional actions as teachers with regard to the knowledge of the Czech school system from an international perspective.

### 2.1 Potential Users of Comparative and School Pedagogy

School pedagogy is, of course, particularly important for teachers already engaged in their teaching practice, but also for those involved in their preparatory training. In other words, if divided into six groups and types of
users, school pedagogy can be used by teachers and managers at schools and other educational establishments, researchers involved in school-related research, and by student-teachers at faculties of education. In addition to teachers, the findings of school pedagogy can also obviously be used by all of the other groups specified below, i.e. everyone wanting to know something about the trends, practice or theory in school education.

We will discuss the users of comparative pedagogy in more detail, using the six groups and types of users defined by Průcha (2006, pp. 21–24):
1. professionals involved in the formation of educational policies, planning and management of the national school system;
2. professionals concerned with the economics of the school system and education;
3. professionals active in the social sciences, sociology and social forecasting;
4. teachers and managers at schools and other educational establishments; researchers involved in school-related research, and other educators;
5. student-teachers at faculties of education;
6. parents and the general public.

Group 1–3: **Professionals involved in the formation of educational policies, planning and management of the national school system** need to/should use the findings from the comparison of a variety of educational systems in order to get information, manage and plan the national school system in the context of international education and educational conditions. **Professionals concerned with the economics of the school system and education** use comparative pedagogy for the purpose of more comprehensive monitoring and overall evaluation of the quality and efficiency of education, including the economic aspects of education and its funding. Thanks to statistics and overviews from comparative pedagogy, **professionals active in the social sciences, sociology and social forecasting** can observe the dependence of education on various factors and thus develop more adequate strategies for the social and economic development of the national society.

Group 4–6: **Teachers and managers at schools and other educational establishments, researchers involved in school-related research, and other educators** can gain information about how other educational systems or schools work abroad when, e.g.
- they are preparing for a school stay abroad;
- they are preparing for the admission of a foreign student/school employee for a study stay;
- they are applying for financial subsidies for international cooperation between schools from various countries through study stays, exchange study stays;
- they are about to prepare research or educational or didactic projects, etc. at the international level.

The issue of school (self-)evaluation is a much hyped topic if we choose a specific situation where comparative pedagogy can be a precious factor for motivation. Here, educators can find how a given situation is addressed at schools and within school systems abroad. The issues related to school (self-)evaluation, to the structure of the school curriculum (amount of lessons devoted to foreign languages or mathematics, etc.), can also be interesting for parents whose children are planning a study stay abroad or for the general public; many of them have already become absolutely equal partners of schools and are interested in these issues whether they include comparative tests, secondary school-leaving examinations as the comparative tests at the end of upper secondary study, etc. Thanks to comparative pedagogy and comparative sources of information, the general public can learn about the methods of school funding in various countries, about the structure of education expenditure in various countries, etc., which may increase their independence from media analyses, etc. Průcha (2006) provides a fairly apt definition of the importance of comparative pedagogy:

"The findings of comparative pedagogy (international comparisons of education systems) are important for the general public as they affect the attitudes towards education in their own country and enable one to evaluate and influence the education system in the given country" (Průcha, 2006, p. 24).

Pre-graduate student-teachers at faculties of education, i.e. potential future teachers, can use comparative pedagogy:
- to develop pedagogical thinking and project work;
- in critical evaluations of selected aspects of the school system;
- to develop their own professional orientation in the teachers’ working conditions in the Czech Republic as compared to the situation abroad, etc.

Comparative pedagogy and its numerous sources can also help contextualise their ideas about the current school systems in Europe and in the world. With the findings of comparative pedagogy in mind, this target group can also be better prepared for any study stays abroad. A more specific situation can be, for instance, when a student-teacher heading towards the end of his/her studies wants to explore the conditions to be satisfied (in the future) in order to be allowed to teach in a foreign country or the working conditions of teachers in the country in question.
2.2 Functions of Comparative and School Pedagogy

As indicated above, there can be three levels of functional application of comparative pedagogy:
- to affect the attitudes towards education in one’s home country;
- to provide an option to evaluate the national education system;
- to provide (create) an opportunity to influence the national education system.

Comparative pedagogy has many other functions. Now let us name and characterise some of them in more detail for the purpose of further clarification. The main functions include:

- **interventional function**\(^1\) (information and knowledge about education systems, conditions abroad having an impact on educational policy and practice in the given country with regard to the efficiency and compatibility of education and within international integration);
- **informative function** (comparative pedagogy is a source of valuable and vast amounts of information about education and its conditions in the world; comparative pedagogy enables and facilitates searches of data and information about education systems, the description and comparisons of education systems);
- **propaedeutic function** (studies of comparative pedagogy and the relevant data develop thinking about the (inter-/national) school system);
- **evaluating function** (thanks to a host of information, comparative pedagogy makes it possible to make evaluations of education systems, conditions, results, educational policies and their impacts in individual countries, etc.);
- **prognostic function** (with the possibility of monitoring developments and development trends, comparative pedagogy also enables forecasting, planning, etc.);
- **motivational function** (comparative pedagogy can also act as motivation; for instance, the knowledge obtained from comparative pedagogy sources and related to the better results of students abroad in respect of reading literacy can motivate us as learners to read more; it can also motivate teachers to change their teaching methods, etc.);

The following may be considered as the main functions of school pedagogy:

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\(^1\) We can also encounter the term ‘interventional comparative pedagogy’ or education within the meaning of descriptions and analyses of educational systems abroad focusing on the practical application of the findings according to the principle of ‘learning from others’ experience’ (Průcha, 2006, p. 24).
• **interventional function** (information and knowledge about practices, theory and trends and the current issues in school education have an impact on actual school practice and are reflected in it);
• **propaedeutic function** (studies of school pedagogy develop the thinking related to school education);
• **informative function** (school pedagogy is a source of information about the course and conditions of schooling);
• **motivational function** (school pedagogy can motivate one to follow trends in schooling, etc.);
• **descriptive function** (first and foremost, school pedagogy is also concerned with the description of the conditions and course of schooling; this description is often supplemented by explanation. However, explanations of schooling phenomena use findings from psychology or educational psychology.

**Review Questions**

- Explain the following educational terms: a) comparative pedagogy; b) school pedagogy; c) explanation; d) comparison; e) description; f) evaluation.
- A/ Name at least five functions of:
  - school pedagogy;
  - comparative pedagogy.
- B/ Explain these particular functions.
- 3) Specify the groups of potential users of comparative and school pedagogy.

**Knowledge-Broadening and Practical Tasks**

1) a/ When continuing your considerations about the **application of school pedagogy**, formulate as many arguments as possible to defend yourself against potential critics of the inclusion of school pedagogy in your study programme.
   - b/ Write down a short summary of these arguments.
   - c/ To develop your critical thinking and your ability to argue and debate, put yourself in the place of a critic and break down/question these arguments.
   - d/ Arrange your considerations, arguments and counterarguments in a mind map.
2) a) When continuing your considerations about the **application of comparative pedagogy**, formulate as many arguments as possible to defend yourself against potential critics of the inclusion of comparative pedagogy in your study programme.

b) Write down a short summary of these arguments.

c) To develop your critical thinking and your ability to argue and debate, put yourself in the place of a critic and break down/question these arguments.

d) Arrange your considerations, arguments and counterarguments in a mind map.

**Summary**

**Comparative pedagogy** is a basic educational discipline and a summary of theories and research activities concerned with the description, comparison and evaluation of education systems abroad. **School pedagogy** can be understood as an applied educational discipline and a subject focusing on the teacher’s development with regard to the knowledge about the Czech school system from an international perspective. Comparative pedagogy has multiple functions, including: interventional, informative, propaedeutic, evaluating, prognostic and motivational. The following may be considered as the main functions of school pedagogy: interventional, informative, propaedeutic, motivational and descriptive. The users of comparative and school pedagogy can be divided into several groups.

**Literature**

References used:

Other sources:


3 List of Main Sources of Information and Institutions Relevant to Comparative Pedagogy

Objectives
After studying this chapter:
- You will get a baseline overview of selected international and Czech sources of comparative pedagogy;
- You will be encouraged to actively use the sources described.

Terms to Remember (Key Words)

| • Eurydice | • NÚV | • VET |
| • EACEA | • ISA+ | • Cedefop |

Obor: Učitelství – společný základ dvouoborých studií
### 3.1 International Online Sources of Information

This sub-chapter will provide an introduction to some possible international sources where you as student-teachers, teachers, parents or the general public can find information related to comparative pedagogy.

1) **The Eurydice Network**  
- This is a network which provides information about analyses of European education systems and policies; it focuses on the structure and organisation of school systems at all levels. Its aim is to support the decision-making sphere (i.e. decision-making in the given area). It comprises several main areas and types of information: national education systems and policies, comparative thematic studies, monitored indicators in the *Key Data Series* section, *Facts and Figures* about education, e.g. structures of education systems, school-year organisation, comparisons of salaries (pay) and time spent teaching, etc. (*Facts and Figures* section). Since 2012 the network has consisted of 38 sections in 34 countries participating in the programme of lifelong learning in the EU (i.e. in the EU Member States, EFTA countries, Croatia, Serbia and Turkey). The network is coordinated by the EACEA (*Education, Audiovisual and Culture Executive Agency*) in Brussels.

2) **Eurypedia (within the Eurydice network)**  
- The aim of this new Eurydice product is to present as accurate a picture of the national education systems in Europe as possible. This source of information can be characterised by providing answers to questions such as: In what manner is the quality of schools and (self-)evaluation ensured in the monitored countries? What responsible bodies exist? What methods are used? The Eurydice network also contains a European education glossary and a series of thematic studies (*Key Data Series*).

3) **CRELL**  
The main aim of the Centre for Research on Lifelong Learning (CRELL) is to perform expert evaluations and monitoring of education and education systems based on indicators and to contribute to the performance of the EU objectives specified in the EU2020 Agenda. The main issues monitored by the Centre include: labour market and employability results, educational results, fair/equal access to education, social cohesion and active citizenship, vocational education and training, ICT in education and training, professional development of teachers, and special educational needs.

6) Education at a Glance: OECD Indicators


This is a report published on a yearly basis. It maps out thirty indicators in education. The currently monitored indicators include Indicators A1–D7. A summary in Czech focusing on data on and comparisons with the Czech school system is executed every year on the basis of this report (České školství v mezinárodním srovnání; ÚIV; for additional information, see the Literature section). This study text also uses selected indicators monitored in the OECD report. For additional information about these indicators, see chapter 5 and Appendix 2).

7) ReferNet (within Cedefop)


ReferNet was developed by Cedefop in 2002. Cedefop is the European Centre for the Development of Vocational Training. Cedefop is a non-profit organisation. It publishes two journals: Vocational Training – European Journal (in nine languages) and Cedefop info (in English, French and German). The main mission of the centre is to provide information on national vocational-education systems and training in the EU Member States, Iceland and Norway.

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2 Cedefop is an acronym of Centre Européen pour le Développement de la Formation Professionnelle
and to support continuing vocational education in the European Union.

`CEDEFOP cooperates with the European Commission, the UROSTAT and the European Training Foundation (ETF). It conducts analyses and research in vocational training and professions. CEDEFOP's activities focus on three priority areas: 1) increasing competencies and lifelong learning; 2) monitoring the development in vocational training in the Member States; and 3) enabling mobility and exchange in Europe. CEDEFOP also administers the European Training Village, a virtual and interactive place where all important entities from vocational education and training meet and exchange experience and expertise with other workers from the EU and outside the EU. The European Training Village was set up in 1998 and currently represents a community of 15,000 experts (members)` (MŠMT, 2013).

8) Statistics and Indicators (within Cedefop)
- The Data by Themes section contains information on education and training, initial vocational education and continuing vocational education, and adult education, including graphs, charts and tables. This source can clarify the following questions related to this study text: What are the inputs and outputs of vocational education? What part of the population is engaged in vocational education and lifelong learning? What are economic expenditures on general and vocational education? What part of the population completes upper secondary education? What part of the population completes school education earlier?

9) Education and Training Figures (within Eurostat)
In its Education and Training section, Eurostat offers information on international comparisons, the main monitored areas, and relevant tables and databases such as: teacher training, ICT, basic skills, investment efficiency, language learning, lifelong guidance, mobility, etc.

3.2 Czech Online Sources of Information
This sub-chapter will focus on the available Czech online sources and the competent institutions relevant for statistical figures and other information on the Czech school system. We find the websites and databases provided by the following institutions useful:
1/ Národní ústav pro vzdělávání, školské poradenské zařízení a zařízení pro další vzdělávání pedagogických pracovníků (NÚV, National Institute for Education, School Counselling Centre and Centre for the Continuing Education of Educators): Available at http://www.nuv.cz. The Institute was formed on 1 July 2011 from the merger of the National Institute for Vocational Education, the Research Institute of Education and the Institute of Educational and Psychological Counselling of the Czech Republic. It offers the following types of education:

- general and vocational education;
- artistic and linguistic education;
- it is concerned with issues related to pedagogical-psychological, educational and career counselling;
- continuing education of educators.

Its activities emphasise lifelong learning and cooperation with the EU. It also administers other information systems and portals:

- information system dealing with the labour-market participation of graduates, ISA+ (http://www.infoabsolvent.cz/);
- methodical portal RVP.CZ – main methodological support for teachers and support of the introduction of framework educational programmes in schools (http://rvp.cz);
- The National Centre Europass Czech Republic (NCE CR) available at http://www.europass.cz/. The Centre was established on 30 March 2005 and is part of the NÚV. It is a contact centre for individuals and organisations wanting to obtain detailed information on the Europass or acquire a Europass. Its activities are coordinated by the European Commission and the European Centre for Vocational Education (Cedefop).

2/ Czech Statistical Office: The Czech Statistical Office (ČSÚ, Český statistický úřad) publishes the following information:

a) figures and statistics related to education³;

b) aggregate data on the Czech Republic, e.g. about the number of inhabitants in respect of the highest level of education⁴;

c) Eurostat database⁵ containing all areas of education and tables according to the topics specified below (see Table 1)

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4 - Available at http://www.czso.cz/cs/redakce.nsf/i/souhrnna_data_o_ceske_republice
5 - Available at http://apl.czso.cz/pll/eutab/html.h
### Table 1 Overview of Themes/Names of Tables by Topics in Education (Eurostat)

<table>
<thead>
<tr>
<th>Financial Indicators</th>
<th>Selected Indicators from the <em>Other</em> Category:</th>
</tr>
</thead>
<tbody>
<tr>
<td>o Annual expenditure on public and private educational institutions per pupil/student, categorised by the level of education</td>
<td>o Expected school attendance duration</td>
</tr>
<tr>
<td>o Private expenditure on education as % of GDP</td>
<td>o Student-teacher ratio in primary education</td>
</tr>
<tr>
<td>o Annual expenditure on public and private educational institutions as compared to GDP per inhabitant, categorised by the level of education</td>
<td>o Students of upper vocational education enrolled in special fields of study, categorised by sex</td>
</tr>
<tr>
<td>o Public expenditure on education</td>
<td>o Foreign language lessons per student</td>
</tr>
</tbody>
</table>

The other two important institutions relevant for the monitored areas include:

- **National Agency for European Education Programmes (NAEP);**
- **Analytical and Statistical Department at the Ministry of Education, Youth and Sports,** which collects and analyses statistical information on the basis of legislation ([http://www.msmt.cz/vzdelavani/skolstvi-v-cr/statistika-skolstvi](http://www.msmt.cz/vzdelavani/skolstvi-v-cr/statistika-skolstvi)).

As for national sources in the Czech language, we also refer to the sources in the Literature section below.
Review Questions
1. Please explain the following terms and these institutions’/networks’ roles: a) Eurydice; b) ReferNet; c) Eurostat; d) Cedefop; e) CRELL.
2. a) Characterise the indicators monitored within ‘Education at a Glance’.
   b) State where and under what name you will find the Czech version of this report.
3. Compare three Czech sources/institutions: a) NÚV; b) School Statistics (Ministry of Education, Youth and Sports); c) NAEP.

Knowledge-Broadening and Practical Tasks
1. In each of the sources 1–9, find at least one graph or one table and comment on the data presented within your seminar work and in writing within your portfolio. Focus on information related to the Czech Republic.
2. Make an evaluation of each source in respect of the following: a) possible application; b) structure of information; c) formal compilation and arrangement.
3. Study the NAEP website (http://www.naep.cz) and characterise the agency as it corresponds to the characterisation of the sources or institutions described in this or the previous chapter.
4. Study the ‘School Statistics’ section of the website of the Ministry of Education, Youth and Sports (http://www.msmt.cz/vzdelavani/skolstvi-v-cr/statistika-skolstvi) and formulate questions to which students, teachers and the public can find answers there.
5. Search for all types of framework educational programmes (FEP/RVP in Czech) in the Czech Republic.
6. Now specify what kind of information can be found on the RVP.CZ portal (http://rvp.cz).
7. On the RVP.CZ portal, choose interesting and applicable information and present it to the group.
8. Include the findings established by assignments 1–5 in your portfolio.

Summary
International and regularly updated sources of information pay a crucial role in comparative pedagogy. Such information is provided by a range of
international institutions, databases, etc. They include Eurydice, Eurostat, OECD, CRELL, CEDEFOP, ReferNet. In the Czech Republic, useful sources of information include the databases published by the Czech Statistical Office (ČSÚ), the National Institute for Education (NÚV), the National Agency for European Educational Programmes (NAEP) and the Ministry of Education, Youth and Sports (MEYS/ MŠMT in Czech).

Literature

References used:

Other sources:
Objectives
After studying this chapter:
- You will have an insight into the main current comparative research and studies such as: ICCS, ICILS, PIRLS, TIMSS, PIAAC, TALIS.

Terms to Remember (Key Words)

<table>
<thead>
<tr>
<th>CIL</th>
<th>IEA</th>
<th>TALIS</th>
</tr>
</thead>
<tbody>
<tr>
<td>ICCS</td>
<td>TIMSS</td>
<td>ICILS</td>
</tr>
<tr>
<td>PIRLS</td>
<td>PISA</td>
<td>PIAAC</td>
</tr>
<tr>
<td>International Civic and Citizenship Education Study</td>
<td>Trends in International Mathematics and Science Study</td>
<td>International Computer and Information Literacy Study</td>
</tr>
<tr>
<td>Progress in</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
International research and studies are also a highly valuable source of information for comparative pedagogy. We will discuss the basic characteristics of selected international research which are most applicable in relation to the Czech Republic, including:

- ICCS 2009,
- PIRLS 2011,
- TIMSS 2011,
- PISA 2012,
- ICILS 2013,
- PIAAC 2010–2013

The basic characteristics of these international studies can be found in sub-chapters 4.1–4.3.

### 4.1 International Research Monitoring Civic and Citizenship Education and Reading Literacy: ICCS and PIRLS

**ICCS**

The acronym ICCS stands for the *International Civic and Citizenship Education Study*. This study was conducted in 38 countries worldwide (including the Czech Republic) in 2009 by the *International Association for the Evaluation of Educational Achievement*, the IEA\(^6\)). It focused on the civic knowledge and attitudes of learners in the 8\(^{th}\) year of their primary education and on the way civic and citizenship education is taught.

The study was primarily centred on the following aspects:

- young people’s interest in and dispositions towards engagement in public and political life;
- adolescents’ perceptions of the impact of recent threats to civil society;
- to what extent young people’s social attitudes are affected by personal and social background such as gender, socioeconomic background and language background;

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\(^6\) The IEA is an abbreviated French name.
• the structure of civic and citizenship education classes, including the way in which these lessons are included in primary-school curricula.

A comparison of the information established in individual countries within the ICCS 2009 was made. The study also compared the civic and citizenship knowledge of learners in 2009 with the year 1999 when a similar international study, CIVED, was conducted (the Czech Republic also participated in this study) (Ministry of Education, Youth and Sports, 2010).

**PIRLS** stands for the *Progress in International Reading Literacy Study*.

This international study focuses on research related to reading literacy. The Czech Republic participated in this study as early as in 2001 when it was centred on the reading literacy of pupils in the fourth year of primary education (4th grade). This milestone was determined by the age of pupils when they have already mastered reading and have started using it as a means to further education. Measurements were performed through written tests and questionnaires.

PIRLS 2011 was the third study of this type; the first two were conducted in 2001 (with the participation of the Czech Republic) and 2006 (without the participation of the Czech Republic). Therefore, the measurements are performed at five-year intervals. For details, see [http://www.iea.nl/pirls_2011.html](http://www.iea.nl/pirls_2011.html).

### 4.2 International Research Monitoring Education in Mathematics and Science, Reading, and Scientific and Mathematic Literacy: TIMSS and PISA

**TIMSS 2011**

This acronym stands for the *Trends in International Mathematics and Science Study*, a continuation of the previous international studies on mathematics and science education which have been conducted worldwide since the 1950s. The TIMSS studies have been conducted in four-year intervals since 1995. The Czech Republic took part in this research in 1995, 1999, 2007 and 2011.

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7 Please note that we can also encounter the name *Reading Literacy Study (RLS)*. However, the RLS denotes the predecessor to the PIRLS.
The TIMSS international studies form part of the projects implemented by the International Association for the Evaluation of Educational Achievement. Its main objective is to provide educational policy-makers, teachers and other experts with information which can be helpful in their efforts to increase the level of student knowledge and skills in mathematics and science. The TIMSS studies focus on nine-year-olds, thirteen-year-olds, and students in their final year of secondary school.

The monitored aspects include:

- what mathematic and scientific knowledge, skills and attitudes do pupils/students acquire at school?
- how are students in individual countries doing in international comparisons?
- how does the level of pupils’ knowledge and skills change over time and with age?
- what are the differences in the teaching methods and school environment in the participating countries?
- what are the factors affecting the different results of students?

PISA 2012


PISA stands for the Programme for International Student Assessment, which is apparently the largest and most important international three-year study centred on the measurements of educational outcomes. It is one of the significant activities of the Organisation for Economic Cooperation and Development (OECD). The PISA assessment currently includes almost 70 countries, including all OECD member states.

PISA 2012 was the fifth measurement of its kind. These studies have been conducted in regular three-year intervals since 2000 when they started to measure reading literacy (the 2009 study had a similar focus). The PISA 2012 study is concerned with testing mathematics literacy (similarly to 2003), including the ability of students to solve cross-subject problem assignments. In 2015 the survey will again focus on science, similarly to 2006.

4.3 International Research Monitoring Computer and Information Literacy and the Competencies Necessary for Normal Life: ICILS and PIAAC
ICILS 2013

http://www.icils.cz/

ICILS stands for the International Computer and Information Literacy Study. In the Czech Republic it is implemented by the national centre established within the Czech School Inspection Authority (Česká školní inspekce). Its main aim is to map out student skills in computer and information literacy (CIL). It surveys the differences in CIL outcomes across individual countries and within schools in individual countries in order to place the established differences in the context of the method in which CIL education is provided. The ICILS study also focuses on the relations between successful student achievement and various aspects of educational systems, technology background in schools, family background, and the individual characteristics of pupils. In the Czech Republic the test student group includes students in the 8th year of basic school and in the corresponding years at multi-year general upper secondary schools (‘gymnasium’) (K–12). The latest reports and outcomes will be available in 2014 (ICILS, 2013).

PIAAC 2010–2013

PIAAC stands for the Programme for the International Assessment of Adult Competencies. It focuses on the assessment of the level of basic skills necessary to succeed in normal life and on the labour market in adults aged 16–65 years, and also maps out the use of these skills in everyday personal and professional life. It brings brand new elements to skill measurement, making it possible to obtain information about the efficiency of education systems which has not been available so far (PIAAC, 2011). For detailed information, see http://www.piaac.cz/informace_piaac.

4.4 International Survey Targeting Teachers: TALIS

TALIS 2013 is one of the important international studies focusing on teachers in which the Czech Republic participated.

TALIS 2013
http://www.oecd.org/education/school/oecdteachingandlearninginternationalsurveytalishome.htm

The Teaching and Learning International Survey – TALIS – is the first international survey focusing on teaching conditions. TALIS 2013 is the second
stage of data collection. The first stage was conducted in 2008 and was centred on the questioning of teachers and school principals in lower secondary education. The 2008 sample comprised some 200 schools in 24 countries with 20 teachers at each school. The TALIS 2013 survey was conducted in 33 countries, including the Czech Republic. The Czech Republic did not take part in the first stage. For additional information, see www.oecd.org/talis.

Review Questions
1. a) Explain what the following acronyms stand for: ICCS, PIRLS, TIMSS, PIAAC, PISA, TALIS, ICILS, CIL.
   b) Add their Czech equivalents.
2. As for the studies characterised above, choose those which concern:
   a) 4th grade pupils;
   a) 8th grade pupils;
   c) nine-year-old pupils;
   d) the population aged 16–65 years;
   c) fifteen-year-olds;
   c) thirteen-year-olds;
   g) students in their final years of secondary school;
   h) teachers.
3. As for the studies characterised above, choose those conducted in the intervals specified below:
   a) 5-year intervals;
   a) 4-year intervals;
   c) other – specify.
4. Please specify the alternate types of focus of PISA studies and their time intervals.

Knowledge-Broadening and Practical Tasks
1. a) If any data is available in relation to the comparative studies described in sub-chapters 4.1–4.3, find at least one graph or one table and comment on the data presented. Depending on the possibilities you have, focus on the information related to the Czech Republic, Slovakia, Finland, two more countries of your choice, the EU average and the OECD average.
   b) Choose or formulate at least two main findings in each comparative study described above.
c) Compare your findings with your colleagues in your study group.

2. Evaluate each source in respect of the following: a) possible application; b) structure of information; c) formal compilation and arrangement.

3. Using the TALIS 2008 website (http://www.oecd.org/edu/school/oecdt eachingandlearninginternationalsurveytalistas2008.htm), create an overview of the specifically monitored issues and using 1–2 graphs of your choice, find information about the country which is linguistically closest to us and which also participated in the survey, Slovakia.

Summary
International studies monitoring civic and citizenship education and reading literacy (ICCS and PIRLS); education in mathematics and science; and literacy in reading, science and mathematics (TIMSS and PISA); studies monitoring computer and information literacy and the basic skills necessary for normal life (ICILS and PIAAC); and studies focusing on teachers and teaching conditions (TALIS) are a highly valuable source of information for comparative pedagogy.

Literature
References used:
Part I: Czech Schools in International Comparisons
5 Education in the Czech Republic in Terms of National Terminology, International Priorities, Principles and Tools

Objectives
After studying this chapter:

- You will connect the international classification to the national identification of levels and types of schools in the Czech Republic.
- You will understand the basic differences between these standards and the need for their existence.
- You will be able to apply the standard to the education system in the Czech Republic.
- You will understand the education system in the Czech Republic from a new perspective.
- You will broaden your knowledge of the Czech education system with an international dimension, including the lifelong learning programme.

Terms
First of all, this chapter defines the structure of the Czech education system using national terminology (sub-chapter 5.1), also in relation to findings from pedagogical propaedeutic. These basic findings about the Czech education system are then expanded with the international dimension of education.

Sub-chapters 5.2–5.4 provide additional information on international tools supporting the attainment of international principles and priorities in education. For instance, you will become familiar with the ISCED 1997 and ISCED 2011 classifications and OECD indicators, facilitating your understanding of and orientation in international comparative studies, as well as searching of appropriate educational opportunities to secure the mobility of students and educators or other entities on the labour market. In addition to the ISCED classifications and OECD indicators, we must also remember other tools supporting the attainment of international priorities and principles in education. They can be categorised into four groups (some tools can be included in multiple categories – see ECDL and SERRJ, etc.):

1. Tools facilitating the penetrability of individual school types and levels: ECTS;
2. Tools supporting employability: Europass, ECVET, EQT, ECDL, European Language Portfolio, SERRJ;
3. Tools supporting education in priority areas such as ICT and languages: ECDL;
4. Other tools supporting mobility and lifelong learning, also including lifelong learning programmes.

Information about individual tools may be obtained in relation to the Knowledge-Broadening and Practical Assignments section where students can make individual choices according to their preferences.

5.1 The Education System in the Czech Republic

The education system is a ‘set of all school and other educational institutions effecting education and training in the country’ (Pedagogický slovník, 2001, In Janiš a kol., 2005).

Table 2: Structure of the Education System
The term ‘education system’ is much broader than the term ‘school system’ or even ‘school structure’. While school structure means the structure of schools and the school system includes both schools and school facilities, the education system also denotes other social entities taking part to a larger or smaller degree in the nation’s education (Janiš a kol., 2005). In addition, the Education Act uses the term ‘educational system’: ‘In this Act hereunder, the educational system consists of schools and school facilities (s. 7).’ In this sense, the educational system is in fact equivalent to the school structure.

Under the Education Act (Act No. 472/2011), the school categories include the following types of schools (using the traditional Czech terminology):
- kindergartens/nursery schools (‘mateřská škola’);
- basic schools (‘základní škola’);
- secondary schools (‘střední škola’), including general upper secondary schools (‘gymnázium’), secondary technical schools (‘střední odborné učiliště’) and secondary vocational schools (‘střední odborné učiliště’);
- conservatories;
- tertiary professional schools;
- basic art schools;
- language schools authorised to organise state language examinations.

As far as the other component of the educational system (school facilities) is concerned, the Education Act defines it as follows: ‘School facilities shall provide services and education supplementing and supporting education in schools or relating directly to it or shall provide institutional and protective education or preventative educational care/school services’ (Education Act, p. 6).

Types of school facilities are as follows: 1. school facilities for further education of pedagogical staff; 2. school advisory facilities; 3. school facilities for developing personal interests and providing further education; 4. school facilities for special purposes; 5. educational and lodging and boarding facilities; 6. school canteens; and 7. school facilities for providing institutional education, protective education and preventative educational care. (For a more detailed specification of school facilities, see the study text Doležalová a kol., 2013).
When providing a description of the school structure, one should also be aware of the *International Standard Classification of Education*. The main reasons for this awareness stem from the following phenomena affecting not only education:

- internationalisation;
- globalisation;
- supported mobility of pupils, students, employees;
- support of research and cooperation of schools at all levels;
- existence of the *Lifelong Learning Programme* (LLP).

The **Lifelong Learning Programme**\(^8\) (introduced in 2006 for the period 2007–2013) includes four sectoral programmes, one transversal programme, and Jean Monnet:

1. **Comenius**: Comenius focuses on pre-school and school education up to the completion of secondary education;
2. **Erasmus**: Erasmus focuses on higher education and vocational training at the level of higher education;
3. **Leonardo da Vinci**: Leonardo da Vinci focuses on vocational education and training (VET);
4. **Grundtvig**: Grundtvig focuses on adult education and lifelong learning;
5. **Transversal Programme**: This program focuses on cooperation and innovation with regard to policies, support of language studies, ICT, and dissemination and exploitation of the results of lifelong learning;
6. The **Jean Monnet Programme** includes Jean Monnet and operating grants for European institutions.\(^9\)

Additional information about the subsidy programmes can be found on the website of the National Agency for European Education Programmes (http://www.naep.cz) and in Chapter 12 of this study text (Options for Funding Educational Activities: Subsidy Programmes, Grants).

### 5.2 International Standard Classification of Education: ISCED 1997 and its Application to the Czech Education System

The existence of the *International Standard Classification of Education* has its roots in the increasing need to address the disunity of terms and national specifics in the classification of school types and levels. In light of the revision of the International Standard Classification of Education made in 2011 and considering the fact that the previous alternative is still used, this

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\(^8\) For details, see chapter 12.
\(^9\) Other European subsidy programmes and funds include: the dissemination programmes QUALL and Inclusion, the EEA Fund and the Norwegian Fund.
sub-chapter will introduce the 1997 version and sub-chapter 5.2 will present the updated standard, ISCED 2011.

**ISCED 1997** stands for the *International Standard Classification of Education* in its version from 1997; this standard was developed for the first time by UNESCO in 1976 (UIS\textsuperscript{10}, 2011). Its purpose was to provide a tool to unify the descriptive view and to find an equivalent for levels of education in various education systems.

As Průcha wrote about this standard and classification in 1999:

'It is today generally used by the OECD, EU, UNESCO and other bodies. The ISCED has become more known in the Czech Republic and has started to be used in recent years. It has become a necessary tool in any communication about the relations between the Czech and international school systems, and its translation to the Czech language also required a more detailed specification of terminology with regard to levels of education.'

(Průcha, 1999, p. 49)

For reasons of clarity, the table below gives a basic overview of the seven levels of education in accordance with ISCED 1997:

### Table 3: Designation of Levels 0-6 in Accordance with ISCED 1997

<table>
<thead>
<tr>
<th>ISCED levels</th>
<th>Designation</th>
</tr>
</thead>
<tbody>
<tr>
<td>ISCED 0</td>
<td>designates <strong>pre-primary education</strong></td>
</tr>
<tr>
<td>ISCED 1</td>
<td>designates <strong>primary education</strong> first stage of basic education</td>
</tr>
<tr>
<td>ISCED 2</td>
<td>designates <strong>lower secondary education</strong> second stage of basic education</td>
</tr>
<tr>
<td>ISCED 3</td>
<td>designates <strong>(upper) secondary education</strong></td>
</tr>
<tr>
<td>ISCED 4</td>
<td>designates <strong>post-secondary education</strong></td>
</tr>
<tr>
<td>ISCED 5</td>
<td>designates the <strong>first stage of tertiary education</strong></td>
</tr>
<tr>
<td></td>
<td>5A typical higher education programmes</td>
</tr>
<tr>
<td></td>
<td>5B programmes focused on practice</td>
</tr>
</tbody>
</table>

\textsuperscript{10} UNESCO Institute for Statistics
ISCED 6 designates the **second stage of tertiary education** (leading to a PhD degree)

The tables below explain the essence of ISCED 1997 through its application to the educational system in the Czech Republic. The left column contains the ISCED 1997 level of education and the right column provides the equivalent levels or types of education in the Czech Republic.

**Table 4: Summary of Czech Levels and Types of Education Equivalent to Levels 0 and 1 in Accordance with ISCED 1997**

| Levels and types of Czech education at Level 0 and 1 in accordance with ISCED 1997 |
|---------------------------------|---------------------------------------------------------------------------------|
| Pre-primary education (ISCED 0) | - kindergarten/nursery school, special kindergarten/nursery school; |
| Primary education (ISCED 1)     | - prep classes                                                                  |
|                                 | - 1. first stage of basic education, first stage of special basic education    |

The principal characteristics of the **Level 0** programmes include their aim of introducing very young children into a school-type environment. The typical limit for entering this level of education is at least three years of age.

Typical characteristics of **Level 1 (primary education)** in accordance with ISCED 1997: minimum age of 5–7 years and character of education; it must be the beginning of systematic studies. This means that primary education must allow learners to develop a sound foundation for further education – reading, writing and mathematics.

According to ISCED 1997, the criteria for including a level or type of education in **Level 2 (lower secondary education)** include: typical minimum age of **10–12 years**; typical duration of this level of education: 2–4 years; it must comprise more subject-oriented education using more specialised teachers and result in the full implementation of basic skills and foundations for lifelong learning. See the table below, specifying both ISCED Level 2 and Levels 3 and 4.

**Table 5: Summary of Czech Levels and Types of Education Equivalent to Levels 2, 3 and 4 in Accordance with ISCED 1997**

<table>
<thead>
<tr>
<th>Levels and types of Czech education at Levels 2, 3 and 4 in accordance with ISCED 1997</th>
</tr>
</thead>
</table>
### Lower secondary education (ISCED 2)
- 2. second stage of basic education and of special basic education
- 1. $1^{\text{st}}$–$2^{\text{nd}}$ year of six-year upper secondary schools ('gymnázium’/’gymnasium’);
- 1. $1^{\text{st}}$–$4^{\text{th}}$ year of eight-year upper secondary schools;
- apprenticeships with specially adjusted curricula;
- apprentice training centres and secondary vocational schools;
- training courses supplementing primary education or education provided by equivalent special school years.

### (Upper) secondary education (ISCED 3)
- four-year upper secondary schools ('gymnázium’/’gymnasium’); $3^{\text{rd}}$–$6^{\text{th}}$ year of six-year upper secondary schools;
- 5. $8^{\text{th}}$ year of eight-year upper secondary schools ('gymnázium’/’gymnasium’);
- fields of study at secondary technical schools, secondary vocational schools, secondary special schools completed with leaving examination or upper secondary school leaving examination;
- study of individual subjects at secondary school, in retraining (requalification) courses completed with leaving examination.

### Post-secondary non-tertiary education (ISCED 4)
- 4A: follow-up courses (study) (4A); formerly post-secondary retraining study (4a);
- 4B: tertiary professional schools (4B);
- 4C: apprenticeships after secondary school completion (4C); retraining (requalification) courses requiring previous secondary school education (4C);
- courses from six months to two years (4C), post-secondary study at language schools accredited by the Ministry of Education, Youth and Sports (MŠMT) (4C).

The table clearly shows that students typically enter **upper secondary education (Level 3)** at the age of 14–16 years. The typical duration of this level is 2–5 years.

**The post-secondary level of education (Level 4)** includes programmes that straddle the boundary between upper secondary and post-secondary education. Typical programmes include short-term vocational training programmes, pre-degree foundation courses (previously included in the tertiary
level), etc. Upon entry, the student must be older than upon entry to ISCED Level 3, and the typical duration of Level 4 education ranges from a few months to two years. It also requires the successful completion of ISCED Level 3 (for detailed information about Level 3, see the table above).

The typical characteristics for being included in **Level 5 (1st stage of tertiary education)** are: 1. age of entry: 17-20 years; 2. successful completion of Level 3A or 4A; 3. fact that programmes of this type do not lead directly to the awarding of an advanced research qualification; 4. the cumulative theoretical duration is at least two years.

Programmes included in the **second stage of tertiary education (level 6)** generally lead to the awarding of an advanced research qualification. Other typical characteristics include: 1. the need to successfully pass ISCED Level 5A; 2. a slightly higher age compared to students entering Level 5A; 3. the typical duration is three years; 4. submission of a thesis or dissertation of publishable quality which is the product of original research and represents a significant contribution to knowledge.

**Table 6: Summary of Czech Levels and Types of Education Equivalent to Levels 5 and 6 in Accordance with ISCED 1997**

<table>
<thead>
<tr>
<th>First stage of tertiary education (ISCED 5)</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Sub-levels: 5A and 5B</strong></td>
<td></td>
</tr>
<tr>
<td>5A: higher education (HE) including a bachelor’s degree programme as a pre-stage of a master’s degree programme; two-year master’s degree programme as a follow-up to a bachelor’s degree programme; master’s degree programme (4–6 years)</td>
<td></td>
</tr>
<tr>
<td>5B: further training after university graduation (obtaining HE qualification) not leading to the awarding of any degree; - tertiary professional schools; bachelor’s degree programmes designed as final; - formerly post-secondary specialisation and innovation courses; - the last two years at conservatory or special conservatory.</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Second stage of tertiary education (ISCED 6)</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>- doctoral study programmes leading to the awarding of a PhD degree; - former research preparation leading to the awarding of a PhD equivalent (‘CSc.’); - Doctor of Sciences (DrSc.)</td>
<td></td>
</tr>
</tbody>
</table>
The International Standard Classification of Education (ISCED 1997) was amended in 2011 to become ISCED 2011. The lines below will describe the main differences and specifics of ISCED 2011 which came into force in 2013 in an effort to give countries enough time to react to the change. The first international studies using the new international standard are to be carried out in the years 2013 and 2014 and the first presentations of the data using ISCED 2011 are expected to be available in 2015.

Diagrams depicting the structure of the education systems in all of the countries monitored by Eurydice are available in several languages at http://eacea.ec.europa.eu/education/eurydice/tools_en.php#diagrams. The figure below shows an illustrative diagram for the Czech Republic. For the diagram from the Ministry of Education, Youth and Sports, see Appendix 3.

**Figure 1: Schematic Diagram of the Education System in the Czech Republic (Eacea, 2011/12)**

5.3 **International Standard Classification of Education after Revision: ISCED 2011**

The International Standard Classification of Education (ISCED 97) underwent a thorough revision at the end of the first decade of the third millennium. As a result, the new classification has:

1. **nine levels, 0–8** (instead of seven, 0–6);
2. **additional determining parts of the code identification.** The code has three digits, with the first one denoting the level of education (0–8); the second distinguishing the programme’s general (4), professional (5) or unspecified (6) focus; and the third (1–4) denoting the level of completion after graduation from the given education programme (Stalker, 2011).
3. **What is new is the option to include informal education** (UIS, 2011).

The reasons for the revision of the 1997 classification arose in particular from the reforms introduced in European tertiary and vocational education including the European Qualifications Framework (EQF) (Stalker, 2011).
The first ISCED 2011 data are to be collected in the years 2013–2014. The first data referring to ISCED 2011 will be available in 2015 (UIS, 2011). For comparison, the table below shows a summary of the ISCED 1997 levels of education as compared to ISCED 2011. In addition, the right column contains information about the usual duration of the said level of education.

Table 7: Comparison of ISCED 1997 and ISCED 2011 Levels of Education and Duration of ISCED 2011 Levels

<table>
<thead>
<tr>
<th>ISCED 1997</th>
<th>ISCED 2011</th>
<th>Duration of ISCED 2011 levels¹¹</th>
</tr>
</thead>
<tbody>
<tr>
<td>0 Pre-primary (3–6 years)</td>
<td>0 Early childhood education¹² (under 2–3 years) Primary (from 3 years until entry to ISCED 1)</td>
<td>Duration is not further defined; only the usual scope of min. of 2 hours per day is defined 100 days/year</td>
</tr>
<tr>
<td>1 Primary</td>
<td>1 Primary</td>
<td>4–7 years, normally 6 years</td>
</tr>
<tr>
<td>2 Lower secondary</td>
<td>2 Lower secondary</td>
<td>2–5 years, normally 3 years</td>
</tr>
<tr>
<td>3 Upper secondary</td>
<td>3 Upper secondary</td>
<td>2–5 years, normally 3 years</td>
</tr>
<tr>
<td>4 Post-secondary non-tertiary</td>
<td>4 Post-secondary non-tertiary</td>
<td>6 months to 2–3 years</td>
</tr>
<tr>
<td>5 First stage of tertiary (subdivided into 5A and 5B)</td>
<td>5 Short-cycle tertiary education</td>
<td>2–3 years</td>
</tr>
<tr>
<td>6 Bachelor’s or equivalent education</td>
<td>6 Bachelor’s or equivalent education</td>
<td>3–4 years after Level 3</td>
</tr>
<tr>
<td>7 Master’s or equivalent education</td>
<td>7 Master’s or equivalent education</td>
<td>1–2 years after Level 6</td>
</tr>
<tr>
<td>8 Doctoral or equivalent education</td>
<td>8 Doctoral or equivalent education</td>
<td>1–3 years after Level 6</td>
</tr>
<tr>
<td>9 Second stage of tertiary</td>
<td>9 Second stage of tertiary</td>
<td>5–7 years after Level 6</td>
</tr>
</tbody>
</table>


¹² Levels 0–8 in English: 0 Early childhood education, 1 primary, 2 lower secondary, 3 upper secondary, 4 postsecondary nontertiary, 5 short cycle tertiary, 6 bachelor or equivalent, 7 master or equivalent, 8 doctoral or equivalent (UIS, 2011, p. 5).
5.4 Another Tool for International Comparisons: OECD Indicators

The second tool we have referred to, OECD Indicators, are based on a project established in 1988 called Indicators of Education Systems (INES) within the efforts to facilitate the collection and comparisons of as updated information about education as possible. The indicators are used within international comparative studies and comparisons. The OECD indicators include a set of 31 indicators or parameters of education divided into four groups (A–D), according to the latest edition of the Education at a Glance (2012) report.

- A The output of educational institutions and the impact of learning (Indicators A1–A11);
- B Financial and human resources invested in education (Indicators B1–B7);
- C Access to education, participation and progression (Indicators C1–C6);
- D The learning environment and organisation of schools (Indicators D1–D7).

(Education at a Glance, 2012)

A detailed list of the indicators is provided in Appendix 2. Here we will mention only the indicators used to make an international comparison in chapters 6–9. Chapter 6 about the content of education is based on the OECD indicator D1 (How much time do students spend in the classroom?) and is focused on the time spent teaching individual subject groups. Chapter 7 centred on students also uses the indicators based on the OECD D1 (How much time do students spend in the classroom?). This time, the following indicators are observed:

- total number of instruction hours;
- compulsory instruction time;
- student’s age when entering school;
- student numbers (class sizes) by the level of education.

Chapter 8 about education expenditures works in particular with the B1 indicator (sub-chapter 7.1) and with the selected indicators (B2, B3, B7) that are briefly described in chapter 7.2. Chapter 9 contains a comparison of the Czech education conditions from the teacher’s perspective using Indicators D2–D5:

D2 What is the student-teacher ratio and how big are classes?
D3 How much are teachers paid?
D4 How much time do teachers spend teaching?
D5 Who are the teachers?

Review Questions
1) Explain the following terms: ISCED 1997, ISCED 2011, ISCED 0, ISCED 1, ISCED 2, ISCED 3, ISCED 4, ISCED 5, ISCED 6, ISCED 7, ISCED 8.
2) Describe the system and structure of education in the Czech Republic:
   a) from the perspective of schools and school facilities (use additional study materials, the Education Act);
   b) from the perspective of the International Standard Classification of Education ISCED 1997;
   c) from the perspective of the International Standard Classification of Education ISCED 2011.
3) Explain the following abbreviations: ECTS, ECVET, ECDL, EQT, SERRJ.

Knowledge-Broadening and Practical Tasks
1) Use the Internet to read more about the tools specified below and explain their substance:
   a) ECTS  c) ECDL  e) EQT
   b) ECVET  d) SERRJ
2) Try to propose your own criteria that you would choose for international comparisons and classification of education.
3) Choose any indicator/evaluation criterion to evaluate the quality of education at a basic or secondary school you are familiar with. Work in groups to unify these criteria so that schools can be compared using these criteria and make a comparison of the schools you finished based on the common criteria you have jointly defined.

Summary
The International Standard Classification of Education (1997 and 2011) and the OECD indicators undoubtedly form the principal terms, concepts and tools facilitating the description and comparison of education systems worldwide. The creation and development of these tools is related to the increasing interest in looking at school systems in various countries and to the internalisation of education, as well as to lifelong learning programmes and other international principles and tools in education. In addition to individual types of schools, the education system also comprises school facilities.
References used:

Other sources:
Objectives
After studying this chapter:

- You will have an insight into the total time that students spend at school and into the time allocated to instruction related to language and literature, science, foreign languages and physical education.
- You will be able to compare a Czech student in respect of the time spent at school and in respect of the time allocated to instruction in the areas specified above.
- You will have an insight into the international dimension of education.
- You will broaden your professional awareness as a teacher.

Terms to Remember (Key Words)

<table>
<thead>
<tr>
<th>educational content</th>
<th>compulsory instruction</th>
</tr>
</thead>
<tbody>
<tr>
<td>total instruction</td>
<td>non-compulsory</td>
</tr>
<tr>
<td>time</td>
<td>instruction</td>
</tr>
<tr>
<td>flexible part of the</td>
<td>compulsory</td>
</tr>
<tr>
<td>curriculum</td>
<td>curriculum</td>
</tr>
<tr>
<td>science lessons</td>
<td>reading, writing</td>
</tr>
<tr>
<td></td>
<td>and literature</td>
</tr>
<tr>
<td></td>
<td>lessons</td>
</tr>
<tr>
<td></td>
<td>OECD indicator D1</td>
</tr>
<tr>
<td></td>
<td>(How much time do</td>
</tr>
<tr>
<td></td>
<td>students spend in the</td>
</tr>
<tr>
<td></td>
<td>classroom?)</td>
</tr>
<tr>
<td></td>
<td>mathematics</td>
</tr>
<tr>
<td></td>
<td>lessons</td>
</tr>
</tbody>
</table>

In this chapter we will focus on individual subject groups and compare the time taught in individual selected subjects in selected countries and in the Czech Republic. The individual countries have a different structure of instruction, total time devoted to teaching, and compulsory subjects. Their choice is reflected by national and/or regional priorities and preferences as to what should be taught and at what age. Countries usually have a number of hours determined by law or other regulation. Most often, the minimum number of hours that a school must observe is specified. It reflects an idea about the teaching time needed for achieving good study results in a particular subject.
6.1 Time Taught in Individual Subject Groups in International Comparisons

Let us focus on a comparison of the time taught in single-subject groups. Each student from the OECD countries between 7 and 14 years of age learns for 6,732 hours. For most of the pupils this time taught corresponds to the period of compulsory instruction. The key subjects are reading, writing, literature, mathematics and science. On average in the OECD countries, the percentage of teaching of reading, writing and literature, mathematics and science is 48% of the compulsory teaching time for pupils aged 9 to 11 and 41% for pupils aged 12 to 14. The share of the compulsory teaching time which is devoted to the teaching of reading, writing, literature and mathematics to pupils aged 9 to 11 is different in the individual countries. It ranges from 11% in Indonesia to more than 30% in France, Mexico and the Netherlands.

Teaching reading, writing, math and the social and natural sciences

In the OECD countries, pupils aged 9 to 11 do not necessarily have the instruction of the specified areas organised in separated classrooms. The pupils this age spend, on average, 48% of the compulsory teaching time learning three key subjects: 1) reading, writing and literature (23%), 2) mathematics (16%), and 3) science (9%). On average, a further 9% of the teaching time is devoted to teaching foreign languages and 8% to science. Together with teaching of the arts (11%) and physical education (9%), these seven subjects form a substantial part of the curriculum in all OECD countries and in other G20 countries that have corresponding data. Teaching ancient Greek and/or Latin, technologies, religion, practical skills, and other subjects make up the rest (11%) of the compulsory teaching time in the curriculum of these pupils. Reading and writing represent the biggest part, but there are more distinct differences among the individual countries than in the case of teaching other subjects. There are also considerable differences in the teaching of foreign languages. For example, less than 3% of the teaching time in England is devoted to teaching foreign languages. More than 10% of the teaching time is devoted to teaching foreign languages, for example, in Germany, Italy and Slovakia. More than one quarter of the teaching time is used for teaching foreign languages in Luxembourg.

In the OECD countries on average, it holds that the non-compulsory (flexible) part of the curriculum represents approximately 4% of the total teaching time for pupils aged 9 to 11 and approximately 6% for pupils aged 12 to 14. The compulsory part of the curriculum is different and the pupils have a different level of freedom in choosing what they want to study. However, the added optional instruction may sometimes, under certain circumstances, take a
substantial part of the time, as well. The total expected teaching time for pupils aged 9 to 11 is compulsory in most of the countries but the added optional part is different. For example, pupils in Chile have optional instruction more than 27% of the teaching time; in Hungary and Turkey it is 20% of the time; in Italy 12%; and in Belgium (the French Community) pupils spend 11% of the time with added optional instruction.

And what is the extent of instruction in the specified area in the Czech Republic? 'In this parameter since 2008 it has not been possible to determine the share of the teaching of single subjects in the specified age groups especially in view of the framework and school educational programs. In the framework educational programs, only a minimum total number of hours that must be devoted to particular 'subjects during instruction in stage 1 (i.e. in the 1st to the 5th grade) and in stage 2 (in the 6th to the 9th grade) is stated. Each school itself determines the distribution of instruction and the real number of hours taught beyond the compulsory minimum in the individual grades by means of their school educational plans. It is not statistically possible to record the possible distribution of instruction in the single grades' (Kleňhová a kol., 2011, p. 126).

In the OECD countries on average, 41% of the compulsory teaching time is devoted to teaching three key subjects to pupils aged 12 to 14: reading and writing 16%, mathematics 13%, and natural sciences 12%. In comparison with the lower end of this age group, a relatively larger part of the curriculum is already devoted to teaching foreign languages (13%) and the social sciences (12%), while less time is devoted to teaching the arts and physical education (in both cases it is 8%). Altogether these seven subjects participate in forming a framework of instruction on the lower secondary level of education in all the OECD countries, including the partner countries. Teaching ancient Greek and/or Latin, technologies, religion, practical skills and other subjects make up the rest (12%) of the compulsory teaching time in the curriculum of pupils aged 12 to 14.

The optional curriculum for pupils aged 12 to 14 ranges from 3% to 32%. The lowest amount of optional teaching is in Slovakia and Portugal, the biggest in Hungary. In the Czech Republic, as a consequence of implementing the framework and school educational programmes, it has not been possible to determine the extent of the optional curriculum for this age group since 2008.

Review Questions

1) Explain what the OECD indicator D1 observes.
2) What subject area uses most of the time taught in the OECD countries on average?
3) What is the reason for the difficulty in determining the number of instruction hours for a selected subject in the Czech Republic?
4) Explain: ‘curriculum’, ‘compulsory curriculum’ and ‘flexible part of the curriculum’.

Knowledge-Broadening and Practical Tasks
1) Search the rvp.cz website to find the Framework Educational Programme for primary (basic) education (RVP ZV) and find the chapter with the recommended allocation of time for individual subject areas.
2) Use the source above to ascertain the minimum number of instruction hours for science and language education.
3) Choose a subject or group of subjects and compare their time allocation during the first stage and second stage of basic education and in individual years.
4) Try to design an ideal schedule for students of individual levels of education according to the recommended number of instruction hours laid down by the Framework Educational Plan (RVP).

Literature
References used:

Other sources:
7 The Czech Learner from the Perspective of Selected Comparative Indicators

**Objectives**

After studying this chapter:

- You will have an idea of how much a Czech student costs in international comparisons of the total instruction time, total compulsory instruction time, and the age of entering school.
- You will map the educational situation in respect of student participation in individual levels of education.
- You will broaden your professional awareness as a teacher.

**Terms to Remember (Key Words)**

<table>
<thead>
<tr>
<th>OECD Indicator D1</th>
<th>total instruction time</th>
</tr>
</thead>
<tbody>
<tr>
<td>How much time do students spend in the classroom?</td>
<td></td>
</tr>
<tr>
<td>flexible part of the curriculum</td>
<td></td>
</tr>
<tr>
<td>student’s age when entering school</td>
<td></td>
</tr>
<tr>
<td>compulsory curriculum</td>
<td></td>
</tr>
<tr>
<td>compulsory instruction time</td>
<td></td>
</tr>
<tr>
<td>class size by level of education</td>
<td></td>
</tr>
</tbody>
</table>

In this chapter we will focus on the position of Czech pupils in international comparisons according to the selected specific indicators of comparative studies. We monitor the selected indicators from the field of OECD Indicator D1 – How much time do pupils spend in the classroom? We will try to compare the total time of instruction, the time of compulsory instruction, and the age of entry of a pupil to the elementary level of education. Last but not least, we will compare the participation of pupils in individual levels of education.

**7.1 Total Teaching Time**

How much time do pupils spend in the classroom? What is the time of teaching at individual levels of education according to age? And how many hours does compulsory instruction represent? The following text should explain these problems and compare the situation known to us from the Czech school
environment with foreign countries. The given problems are monitored by OECD Indicator D1 – How much time do pupils spend in the classroom?\textsuperscript{13}

The proper setting of teaching time in a formal class represents demands for expenses and therefore for investments. After all, it also is a fundamental element of effective education. The total number of teaching hours in public schools for pupils aged 7 to 14 from the OECD countries is shown in the following chart.

**Chart 1: Total Number of Intended Instruction Hours in Public Institutions between the Ages 7 and 14 in 2009 (Source: Kleňhová, 2011, p. 124)**

\textsuperscript{13} Also see chapter 6 focusing on educational content in relation to teaching time (author’s note).
The total number of teaching hours is estimated on the basis of the number of hours during which pupils were taught both the compulsory and optional parts of the curriculum provided by the legal regulations of the given country. The teaching time very often corresponds to the compulsory teaching time.

'In the OECD countries the total number of the teaching hours is, on average, 6,732 hours for pupils aged 7 to 14. The required extent of teaching time ranges from 4,715 hours in Poland to more than 8,316 hours in Italy’ (Kleňhová, 2011, p. 125). During these hours schools are obliged to offer instruction in compulsory as well as optional subjects. In the case of pupils of this age, the extent of the expected teaching time is a good indicator of the theoretical load of the pupils at school but cannot be interpreted as the actual teaching the pupils received during the year and that they spent in elementary education.

In some countries the total expected teaching time is different in individual regions as well as in particular types of schools. In many countries the number of teaching hours in single subjects is determined either by the local authorities or the schools themselves. This means that the expected teaching time may differ from the actual teaching time. Moreover, the hours are often planned for individual tutoring or curriculum enhancement. On the other hand, this time may be lost for reasons of student absence or because of a lack of qualified substitute teachers.

'At the age of 7 and 8 years, pupils will receive 1,550 hours; at the age of between 9 and 11 years they can expect 2,462 hours; and at the age of between 12 and 14 years 2,720 hours’ (Kleňhová, 2011, p. 125).
7.2 Total Compulsory Instruction Time

The total teaching time is estimated as the number of lessons during which pupils are taught both in the compulsory part and in the compulsorily flexible part of the curriculum (in our conditions in the restricted electives). ‘In the OECD countries, pupils aged 7 to 14 have 6,497 hours of compulsory instruction’ (Kleňhová, 2011, p. 125). The expected teaching time is compulsory for the whole 7–14-year-old age group in most of the countries. The Czech Republic, England, Germany, Sweden, Norway, and others may be given as examples. In France and Ireland the expected teaching time is fully compulsory at the age of 7 and 8 and between 9 and 11 years but not in the older age groups. In Finland the total teaching time is compulsory for pupils aged between 7 and 8 years.

Within the framework of the formal education system, the OECD countries have scheduled the average extent of the compulsory hours in classes as follows: 749 hours per year for the age of 7 to 8 years, 793 hours for the age of 9 to 11 and 873 lessons for the age of 12 to 14 years. The average amount of compulsory instruction in the typical education program of 15-year-old pupils is 902 hours per year.

‘In 2009 in the Czech Republic the extent of teaching was as follows: it was 624 hours per year for the age of between 7 and 8 years, 713 hours per year for the age of between 9 and 11 years, 871 hours per year for the age of between 12 and 14, and 950 hours per year for the age of 15 years, on average. In comparison with previous years, the number of hours shown has substantially decreased in our country. In previous years the average number of hours was reported and since 2008 the minimum number of hours determined by the Ministry of Education, Youth and Sports has been reported. This change in reporting the number of hours was caused by the introduction of the framework education programs and school education plans where schools are obliged to teach the determined minimum number of hours and everything above the fixed minimum fully falls within the school’s authority. However, this flexibility of the schools cannot be recorded statistically’ (Kleňhová, 2011, p. 126).

7.3 Participation of Students in Individual Levels of Education

7.3.1 Participation of Children in Pre-primary Education and Commencement of Compulsory Education

The participation of children in pre-primary education is practically universal in all OECD countries. As Kleňhová also states (2011, p. 97), the results of the PISA survey confirm the importance of pre-school education as it
relates to education at later age. In most countries, pupils who attend pre-primary education achieve better results than those who do not participate in it even though they have a better social background. Stress put on participation in pre-school education is given by the nature of this education which actually forms the basis of lifelong learning and makes entry into compulsory school education easier. Many countries have almost universal pre-school pre-primary education for children of three years of age. However, the indicator only includes the pre-primary-education data realized in educational institutions and only shows the degree of participation, not the quality of this education. For that reason the results should be interpreted carefully.

In half of the OECD countries, full participation (i.e. to the extent of participation exceeding 90%) in education actually starts between five and seven years of age. In almost two thirds of the OECD countries, at least 70% of children aged 3 to 4 are educated in pre-primary or primary education. It can be assumed that children from the EU21 countries aged 3 to 4 will participate in education more than in other OECD countries. On average, in the EU21 countries the degree of participation in education of children aged 3 to 4 years is more than 75%, while the OECD average is 70%. In 2009 in Belgium, Denmark, France, Iceland, Italy, Norway and Spain, the degree of participation in education of children aged 3 to 4 years was more than 95%. Turkey is the only country where the degree of participation in education of these children is lower than 9%, probably due to the limited number of pre-school facilities available; moreover, most of them are private, and school fees are collected. In Belgium (17.1%), the Russian Federation (17.6%) and Spain (24.6%), children under three years of age may attend pre-school programs intended for older children. In the Czech Republic the degree of participation in education of children aged 3 to 4 is 72.6%.

7.3.2 Participation of Children in Compulsory School Attendance (in Principle ISCED 1, 2)

*The participation of children in compulsory school attendance includes the programs of primary and lower secondary education in all OECD countries and in most of the countries it also includes the programs of higher secondary education. The degree of participation at the age of between 5 and 14 years is more than 90% in all OECD countries and other G20 countries. In 2009 it was even higher than 95% in all the countries with the exception of Poland, the Russian Federation and Turkey. In the Czech Republic the degree of participation in education of children aged 5 to 14 years is 98.7%* (Kleňhová, 2011, p. 97).
Participation in education at the end of and after compulsory school attendance. Some factors, including a high risk of unemployment and other forms of excluding young people without corresponding education from the society, have an influence on making decisions on the continuance of young people in education after completing their compulsory school attendance. In many OECD countries, the transition from education to employment has become a longer and more complex process which gives students an opportunity to combine work and employment so that they can gain corresponding skills utilizable on the labour market.

In the OECD countries and partner countries, compulsory school attendance ends at the age of from 14 (e.g. in Portugal) to 18 years (in Belgium, Germany, the Netherlands, and Hungary). However, the typical age for ending compulsory school attendance very often does not correspond to the age at which participation in education is full.

In most OECD countries and G20 countries, the age at which compulsory school attendance normally ends is not the age at which at least 90% of inhabitants are still in the education process. In most countries this age is higher than the age at the end of compulsory school attendance while in Belgium, Germany, Israel, Hungary, the Netherlands, Turkey, and the United States of America the degree of participation is less than 90% already before completing compulsory school attendance. In Belgium, Germany, Hungary, and the Netherlands this may be due to the fact that compulsory school attendance is quite long and ends at the age of 18 years. In Belgium and the United States of America the sudden fall is caused by the quite high degree of participation in tertiary education (around 30%)\(^\text{14}\).

7.3.3 Participation in Higher Secondary Education

Participation in higher secondary education has been growing permanently, which means that 'the individual countries must meet the demands of a diverse group of pupils. In order to meet these requirements the individual countries have adopted various strategies. Some of them have introduced a uniform, non-selective system with general programs where students have similar education opportunities, while others provide a broad range of various programs (generally oriented, special, pre-special).' (Kleňhová, 2011, p. 97) In the 1995–2009 period the degree of participation in education of students aged 15 to 19 years in education increased in the OECD countries

\(^\text{14}\) In most OECD countries and other G20 countries the degree of participation in education does not start falling during the last year of compulsory school but at the end of higher secondary education; the fall becomes faster in the last years of this educational level.
by almost 9.3 percentage points, that is by 0.7 of a percentage point per year on average.

Within the last 14 years in the OECD countries the degrees of participation have been getting mutually closer as Kleňhová also states (2011, pp. 95–101). In the Czech Republic participation has increased by 20% and in Poland by 15%. On the other hand, in Germany it has remained unchanged.\textsuperscript{15} In France the degree of participation of this age group decreased from 89% to 84% in the given period. In the Czech Republic the degree of participation of students aged 15 to 19 years increased from 66% in 1995 to 81% in 2000 and to 89% in 2009. The low degree of participation in 1995 was caused by eight-year basic school (the ninth grade was optional) and thus by the shorter period needed to complete higher secondary education. In all OECD countries and G20 countries, students in higher secondary education are mostly at the age of between 15 and 18 years. In some OECD countries at least one quarter of 20-year-olds are still in education at the higher secondary level. This applies to Denmark (31%), Germany (25%), Iceland (36%), the Netherlands (27%) and Slovenia (26%) and may be a consequence of longer programs, repeating grades, or later entry to the labour market.

\subsection*{7.3.4 Participation of Young Adults in Education}

Another area of interest is tertiary education, usually participated in by students aged 20 to 29 years. Within the framework of the OECD countries, on average, one quarter of the inhabitants of this age are in education. ‘The greatest participation by this age group is in countries like Denmark, Finland, and Iceland, but also in Germany and Poland. In the Czech Republic, 22.5\% of the population aged 20 to 29 years is in education. Similar values are reached also in Austria and Slovakia. Less than 20\% of the inhabitants in tertiary education are, for example, in France, Ireland and England. In the EU21 countries the degree of participation of the 20–29-year-old age group is 26.6\% on average’ (Kleňhová, 2011, pp. 102–105).

The policies of many countries support development especially in the tertiary field, so tertiary education has been becoming more important than it has ever been. ‘On average in the OECD, having the comparable data, the degree of participation in education of inhabitants aged 20 to 29 increased by 8.2 percentage points (i.e. an average annual increase of 0.6 of a percentage point)\textsuperscript{15}

\textsuperscript{15} In Germany the majority of the 15–19-year-old population is in education. Thus, a considerable increase in participation in education cannot be expected in this age range.
in the period between 1995 and 2009. In this period in almost all the OECD countries and other G20 countries, the degree of participation in education of 20–29-year-old inhabitants also increased. A considerable increase **exceeding 10 percentage points occurred in the Czech Republic, Finland, Greece, Hungary, Poland and Sweden.** Within the OECD countries the **Czech Republic** and Hungary reached the minimum values at the beginning of the monitored period while in 2007 they were in the middle of the scale. **In the Czech Republic the degree of participation in education of 20–29-year-olds increased by 13 percentage points in the 1995–2009 period.** However, the development of the last five years has shown a bit different trend as the degree of participation of 20 to 29-year-olds in education has been gradually stagnating just like in the case of 15 to 19-year-olds’ (Kleňhová, 2011, pp. 102–105).

**Review Questions**

1) What is the position of the Czech Republic in relation to the OECD average in respect of the total number of instruction hours?
2) What is the percentage of 5–14-year-olds participating in education in the Czech Republic?
3) What has been the recent trend in tertiary education?
4) At what age does compulsory school attendance end in the Czech Republic?
5) What is the percentage of students in the Czech Republic participating in compulsory school attendance?
6) How many hours a year do students learn in the OECD countries on average? How many hours a day?

**Knowledge-Broadening and Practical Tasks**

1. Recall and name the countries which are:
   a. EU Member States
   b. OECD Member States
   c. G20 Member States
2. Try to compare the current numbers of students and students at individual levels of education based on the reports from the Ministry of Education, Youth and Sports.
3. What is the reason behind the sharp rise in the number of those participating in tertiary education?
4. What are the pros and cons of the increased availability of tertiary education?

**Summary**

The time spent at school is an opportunity for students to learn. The average number of instruction hours for 7–14-year-olds in the OECD countries is 6,732. The required scope of instruction time ranges from 4,715 hours in Poland to more than 8,316 in Italy. The presumed instruction time in the Czech Republic is lower than the EU average. Students aged 12–14 years spend the highest number of hours at school. The rate of participation in education of 5–14-year-olds in the Czech Republic is 98.7%.

**Literature**

References used:

Other sources:

**8 Education Expenditure in the Czech Republic in International Comparisons**

**Objectives**

After studying this chapter:
- You will gain insight into education expenditure in the Czech Republic in international comparisons.
- You will become familiar with individual indicators monitored within the expenditure statistics.
- You will find out ‘how much is spent per pupil/student’ in international comparisons according to OECD Indicator B1.
You will find out how much research and development cost within education and their proportionate educational share.

You will compare the education expenditures of selected countries relative to GDP.

**Terms to Remember (Key Words)**

<table>
<thead>
<tr>
<th>education expenditure</th>
<th>financial and human resources invested in education</th>
<th>OECD Indicators:</th>
</tr>
</thead>
<tbody>
<tr>
<td>financial and human resources</td>
<td>GDP – gross domestic product</td>
<td>B 1</td>
</tr>
<tr>
<td>expenditure per pupil/student</td>
<td>research and development</td>
<td>B 2</td>
</tr>
<tr>
<td></td>
<td></td>
<td>B 3</td>
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<tr>
<td></td>
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<td>B 6</td>
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<td></td>
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<td>B 7</td>
</tr>
</tbody>
</table>

This chapter contains information about recent education expenditure in the Czech Republic and we will compare it to the expenditure in selected countries and to the international average. A deeper and broader awareness of these aspects in an international context can facilitate a deeper understanding among existing and prospective teachers about the school system and the financing of education in the Czech Republic, also with regard to the fairly frequent public and media discussions about the insufficient financing of the Czech school system. This chapter is expected to help the reader develop his/her own opinion on this issue independent of what is presented in the media.

The issue of education expenditure has been monitored through the OECD’s **B – Financial and human resources invested in education** – indicators (B1–B7; for all OECD indicators, see Appendix 2):

B1 - How much is spent per student?
B2 - What proportion of national wealth is spent on education?
B3 – How much public and private investment in education is there?
B4 – What is the total public spending on education?
B5 – How much do tertiary students pay and what public support do they receive?
B6 – On what resources and services is education funding spent?
B7 – Which factors influence the level of expenditure?
Chapter 8 has two sub-chapters. The most discussed indicator will be B1 (sub-chapter 8.1). Other selected indicators (B2, B3, B7) are presented only at the basic informative level (sub-chapter 8.2).

8.1 Expenditure Indicator B1: How Much is Spent per Pupil/Student?

As regards high-quality goods or high-quality services, one is generally convinced that the higher the quality, the more expensive it is. There is always a high demand for high-quality products or services regardless of their promotion or price. The demand for high-quality education is high as well. And this demand can be reflected in higher costs per student. However, these costs must be in a certain balance with other requirements related to public spending and the cumulative tax burden. The trends in expenditure per student show that the increasing numbers of students in many OECD countries do not always go hand in hand with increased spending in this area. Expenditure per student is to a large extent influenced by:

- the level of teachers’ salaries (pay);
- pension systems;
- duration of instruction and number of instruction hours;
- costs of teaching aids and equipment;
- type of programme;
- policy of incentives for young teachers;
- classroom size;
- qualification requirements for the performance of the teaching profession;
- education-related services;
- funding of research and development.

The expenditure-per-student indicator includes direct public and private education expenditure by the number of students. The costs of students’ life expenses subsidised from public resources are not included in the comparison. The differences in expenditure per student can result from various factors – different material resources provided to students in individual countries, different numbers of students per teacher, different wage and price relations, etc. Expenditure per student is stated in USD and calculated as purchasing power parity\(^\text{16}\).

\[^{16}\text{The comparison is based on purchasing power parity relative to GDP, i.e. it is based on a single consumption basket that could be acquired for USD 1 in the US in 2008.}\]
8.1.1 Average Annual Education Expenditure: CR and OECD Countries

According to Kleňhová (2011, pp. 62–70), average annual expenditure per student during the educational process (from primary to tertiary education) in the OECD countries is USD 9,860: At the primary level it is USD 7,065, at the secondary level it is USD 8,852, and at the tertiary level it is USD 18,258. Expenditure on actual education (core educational services) dominates at the primary and secondary levels, accounting for 93% of the total expenditure per student. Expenditure per student at the secondary level is influenced by the orientation of the provided programmes. Sixteen OECD countries spend USD 970 more on average per student in vocational programmes than in general programmes (USD 878 more in the Czech Republic).

The difference between expenditure on core educational services and total expenditure is greater at the tertiary level, primarily as a result of the fairly high level of expenditure on research and development. On average, these expenses account for 30% in the OECD countries. Between 2000 and 2008, expenditure per student in tertiary education in the OECD countries rose by 14% on average after being stable in the 1995–2000 period. On average, the OECD countries spend twice as much per student in tertiary education than per student at the primary level; if spending on research and development is eliminated, expenditure per student in tertiary education is 20% higher compared to the lower levels of education.

Between 2000 and 2008, expenditure on primary, secondary and post-secondary non-tertiary education increased in every country with available data by 34% on average, and student enrolment was fairly stable during this period. Annual expenditure per student ranged from USD 4,000 and less to almost USD 15,000 (Switzerland, the US). Individual countries have different priorities when redistributing these funds (amount of teachers’ salaries, number of students per teacher (student-teacher ratio), etc.), which is why these aspects must be taken into account (see the above influence on expenditure per student).

The Czech Republic spends a total of USD 5,895 on average per student per year from primary through tertiary education; on average, annual expenditure on primary education is USD 3,799, on secondary education USD 6,174, and on tertiary education USD 8,318\(^\text{17}\) (Kleňhová, 2011, p. 63).

\(^\text{17}\) Expenditure on primary- and secondary-education institutions varies up to six times or even ten times (ranging from USD 2,246 to USD 13,648 at the primary level, and from USD 2,058 to USD 19,898 at the secondary level). Expenditure per student in tertiary education ranges from USD 6,560 (Slovakia) to more than USD 20,000 (Sweden, Switzerland, the US).
8.1.2 Expenditure on Core Educational Services/Instruction

As Kleňhová states in her report (2011, p. 65), expenditure on core educational services (i.e. not including expenditure on research and development and on ancillary education-related services) from primary through tertiary education represents 82%–95% of the total expenditure per student at these levels of education. Expenditure on actual education (core educational services) dominates at the primary and secondary levels. On average, the OECD countries spent a total of USD 7,615 on core educational services at the primary, secondary and post-secondary non-tertiary levels in 2008. This corresponds to 93% of the total expenditure per student at these levels of education. In 50% of the monitored countries, expenditure on ancillary services related to education at the primary, secondary and post-secondary levels accounts for less than 5% of the total expenditure per student. This proportion exceeds 10% of the total expenditure in Finland, France, Hungary, Slovakia, Sweden and the United Kingdom. In the Czech Republic, annual expenditure per student on core educational services at the primary, secondary and post-secondary non-tertiary levels is USD 4,812; expenditure on ancillary educational services accounts for 8.1% of the total annual expenditure per student at these levels.

Greater differences in expenditure on core educational services as compared to total expenditure are apparent in tertiary education, in particular as a result of expenditure on research and development (Kleňhová, 2011, p. 65). Here it is important whether the research is conducted within or outside tertiary-education institutions. Not considering expenditure on research and development, the average annual expenditure per student at the tertiary level in the OECD countries is USD 9,149 (ranging from USD 5,000 and less in Slovakia to more than USD 10,000 in Austria, Norway and Sweden, or even more than USD 23,000 in the US). In the Czech Republic, this annual expenditure is USD 6,827 on average. On average in the OECD countries, expenditure on research and development and on ancillary educational services accounts for 30% and 4%, respectively, of the total average annual expenditure per student in tertiary education. In the Czech Republic, expenditure on research and development and on ancillary educational services accounts for 16.8% and 1.4%, respectively, of expenditure per student in tertiary education. Education expenditure rises with the growing level from primary through tertiary education. On average, the OECD countries spend 1.9 times as much per student in tertiary education than per student at the primary level, but there are marked differences among individual countries. While in
Iceland, Italy and Poland, this figure is merely less than 1.5 times higher, it is at least three times as much in Mexico, Brazil and the US. In the **Czech Republic**, expenditure per student in tertiary education is 2.1 times greater than per student in primary education.

To make a better visual comparison with other countries and the OECD average, Appendix 4 contains a chart with average annual expenditure by educational institutions per student at various levels of education (2008 data). The data are given in descending order by expenditure per student at the primary level of education.

If we look at expenditure per student relative to GDP per capita, we can see that the OECD countries as a whole have an average education expenditure per student of 21% of GDP per capita at the primary level, 26% at the secondary level, and 41% at the tertiary level.¹⁸ *The Czech Republic spends 15% of GDP per capita per student in primary education, 24% per student in secondary education, and 32% in tertiary education (if expenditure on research and development is excluded, it is 27% of GDP per capita)* (Kleňhová, 2011, p. 67).

### 8.1.3 Expenditure per Student: Development in 1995–2008

Let us have a look at the development of expenditure per student over time in the years 1995 and 2008. Both the size of the school-age population and changes in teachers' salaries have an impact on education expenditure. The need to secure student education rises with the growing student population, i.e. investment into education rises as well. Teachers’ salaries change in relation to changes in the pay level in the given country; and if pay goes up, the need to invest into education arises ... Between 1995 and 2008, expenditure per student increased in all countries at all levels of education. *On average, it was a 54% rise with relatively stable student enrolment (without tertiary education). The Czech Republic and Switzerland were the only exceptions, showing a decrease between 1995 and 2000 and an increase between 2000 and 2008. The majority of OECD countries reported a rise of at least 15% during this period (2000–2008) while in the Czech Republic it was greater than 40%¹⁹. A decline in total student enrolment in the reported period was accompanied by a corresponding increase in the total expenditure per student. In the Czech Republic, there was a 14% decline in student enrolment at all levels of education (except for tertiary*

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¹⁸ In this comparison, countries with low GDP per capita and low expenditure per student can show results similar to countries with high expenditure. For example, Portugal has a lower expenditure per student than the OECD average, but with regard to its low GDP per capita, they spend more on students relative to GDP per capita than the OECD average.

¹⁹ A similar rise can be seen in Estonia, Hungary, Poland, Slovakia, etc.
education) in the 2000–2008 period. As a result of these changes, the total expenditure increased 37% and the average expenditure per student rose 59%. Tertiary education underwent changes, too. In the years 2000–2008, student enrolment in tertiary education climbed 64% and corresponding expenditure rose 102%, which represents a 24% increase in the average expenditure per student (Kleňhová, 2011, p. 68).

8.2 Other Expenditure Indicators: B2, B3, B7

Indicator B2 monitors the amount of national wealth spent on education. The data monitored within Indicator B2 show the following facts:

- All OECD countries spend quite a large part of their public resources on education; on average, they spend 6.1% of GDP (both from public and private sources of funds) at all levels of education.
- The highest expenditure (more than 7% of GDP) is invested in Denmark, Iceland, Norway and the US.
- Less than 5% of GDP is spent on education in China (3.3%), in the Czech Republic (4.5%) and in Germany (4.8%).
- The greatest differences can be seen in expenditure on pre-primary education, which is a result of different education enrolment rates, different starting age, etc. In 2007 the Czech Republic spent 0.5% of GDP on pre-primary education, 1.6% of GDP on primary and lower secondary education, and 2.8% of GDP on primary, secondary and post-secondary non-tertiary education.
- Almost one third of education expenditure in the OECD countries goes to tertiary education. In 2007 expenditure on tertiary education in the Czech Republic amounted to 1.1% of GDP.

The other two indicators are

- **B3: How much public and private investment in education is there?**
- **B7: Which factors influence the level of expenditure?**

The main findings resulting from Indicator B3 can be summarised as follows: On average, a total of 83% of education expenditure in the OECD countries is funded from public resources. Public education expenditure grew in all countries.

The monitoring of aspects relating to Indicator B7 showed the following results: The relation between the funds spent on education and student achievement is a result of education policies. Given the increasing pressure on public budgets, governments seek ways to ensure high-quality outcomes while spending minimum funds. The highest share of education expenditure goes to
teachers’ salaries. The relation between the education-expenditure system and educational outcomes is affected by the following factors:

- the organisation and management of education within the system (level of governance and management, distribution of management competencies, geographic dispersion of the population);
- the organisation of the educational process (class size, number of hours of instruction from the perspective of students);
- the quality of the teaching workforce;
- the quality (characteristics) of the students and their socioeconomic backgrounds.

Labour cost per student is affected by four factors: 1. instruction time from the perspective of the student; 2. teachers’ teaching time; 3. teachers’ pay, and 4. class size. If we look at labour costs per student, the Czech Republic (2008) is below the OECD average at all levels. The average labour costs per student in upper secondary education in the Czech Republic were USD 1,502 lower than the OECD average.

Review Questions

1) Which factors influence the level of expenditure per student?
2) What level of education is the most costly in respect of expenditure per student? Explain why.
3) How much a year does the Czech Republic spend per student from primary through tertiary education? Calculate expenditure per student using the current USD/CZK and EUR/CZK rates.
4) What difficulties can be found in comparisons of expenditure per student relative to GDP per capita? Give an example.
5) Search electronic databases to determine which country spends the most per student and which has the lowest expenditure. Try to describe the causes.

Knowledge-Broadening and Practical Tasks
1) Search the appendices to find the chart comparing the investments of individual countries into the three levels of education and try to answer the following questions. Also, try to find the reason(s) why it is so.
   a) Which countries have the highest investment into education?
   b) Which countries have the lowest investment into education?
   c) Which countries have shown high-quality results in education over the long term? Compare the costs of education according to the chart.
   d) Which countries have about the same investment into individual levels of education as the Czech Republic?
   e) Which countries are below the OECD average in respect of education funding?
   f) Which countries are below the OECD average in terms of education financing?
2) Search the Internet to find the latest OECD ‘Education at a Glance’ report and compare the development of financing in individual countries.
3) Search the Internet to find the current GDP of the Czech Republic.
4) Compare the Czech Republic’s current GDP with the other EU countries.
5) Think about the future development of education expenditure in respect of the Czech Republic’s GDP. What can influence this indicator?

**Summary**
In most OECD countries, most of the time at the basic level of education is devoted to the basic subject areas such as 1) reading, writing and literature (23%), 2) mathematics (16%), and 3) science (9%). An additional 9% of teaching time on average is devoted to foreign languages, 8% to the social sciences, 11% to the arts, 9% to physical education, and the remaining 11% to Ancient Greek or Latin. At the upper level of education, three basic subject areas take an average of 41% of the compulsory instruction time: reading and writing (16%), mathematics (13%), and science (12%). Compared to the younger age group, a relatively larger part of the curriculum here is devoted to foreign languages (13%) and the social sciences (12%) while less time is spent on the arts and physical education (8% on both). The monitoring and statistical evaluation of the time allocated to individual subject groups in the Czech environment was complicated in 2008 by the introduction of framework educational plans and school educational plans.
Education expenditure constitutes an important share of each country’s public funds, being a kind of mirror of the society and its perception of education as something valuable. It is not easy to make comparisons of individual countries since education expenditure is a reflection of many local factors; the incorrect interpretation of outcomes from some comparisons can even lead to erroneous conclusions. Conclusions about education expenditure must be formulated with caution, also with regard to the determining factors.

**Literature**

References used:

Other sources:

9 The Czech Teacher Viewed from the Perspective of Selected Comparative Indicators
Objectives
After studying this chapter:

- You will have an insight into international comparisons focused on the Czech learning environment with an emphasis on the teacher’s position.
- You will have a basic understanding of Indicators D2–D5, which are concerned with the following aspects: student-teacher ratio, number of students in a class (class size), remuneration of teachers, age of teachers, and share of women among teachers.
- You will develop your ability to work with online OECD tables and charts.
- You will be encouraged to actively work with the data from international comparisons of the conditions of instruction, to use the data in your arguments, and to do a search of the current data.
- You will gain knowledge about the teaching profession, i.e. about the profession you have chosen, in an international context.

Terms to Remember (Key Words)

| Indicator D2 | student-teacher ratio | working time of teachers |
| Indicator D3 | class size | OECD average |
| Indicator D4 | age of teachers | EU21 average |
| Indicator D5 | share of women among teachers | G20 average |
|              |                    | teachers’ salaries |

This chapter presents Czech teachers within international comparisons from the perspective of four indicators monitored in the regular OECD comparative study ‘Education at a Glance’. It refers to the latest version of the study, including its Czech version (‘České školství v mezinárodním srovnání’, ÚIV, 2012). The monitored indicators are D2–D5:

- D2 What is the student-teacher ratio and how big are classes? (sub-chapter 9.1)
- D3 How much are teachers paid? (sub-chapter 9.2)
- D4 How much time do teachers spend teaching? (sub-chapter 9.3)
- D5 Who are the teachers? (sub-chapter 9.4)

The following elements are used in the presentation of the study findings or trends: 1. a verbal commentary; 2. a selected chart completely taken completely from the study; and 3. the author’s tables or charts capturing the
selected data and enabling more targeted and transparent comparisons of the situation in the Czech Republic:

- with selected countries – selected by the attractiveness of their data and their comparisons with the Czech Republic;
- with the average values of the given indicator in OECD countries, EU Member States or G20 countries (if it is available in the original OECD tables, Indonesia may be an example of a G20 country).

9.1 What Is the Student-Teacher Ratio and How Big Are Classes?

The issue of **class size and the student/teacher ratio** is a much-discussed aspect of education and a factor influencing the total amount of teaching necessary to ensure instruction\(^\text{20}\). In the latest OECD studies, ‘Education at a Glance’, these aspects are monitored as Indicator D2. Sub-chapter 9.1.1 deals with the student-teacher ratio and sub-chapter 9.1.2 makes comparisons of class sizes. Despite the significant informative value of this indicator which illustrates learning conditions, it would be a mistake to overestimate these conditions; see the passage below:

> Although smaller classes are often perceived as a condition 1. giving teachers a better opportunity to concentrate on individual student needs, and 2. reducing the amount of time spent on dealing with disputes arising from there being a high number of students in a class, there are in fact very few pieces of evidence which show the impact of class size on student results. ‘Smaller classes are good for teaching specific student groups such as those from disadvantaged environments’ (Krueger, 2002). There is more likely evidence about the relation between smaller classes and aspects of the teachers’ working conditions and study results’ (Hattie, 2009, OECD, 2009 in MŠMT, 2012, p. 79).

9.1.1 Student-Teacher Ratio

This indicator monitors the student-teacher ratio (the number of students per class). The table below shows the student-teacher ratio in the Czech Republic as compared to selected countries and to the OECD and EU average. If we observe the values across individual levels of education, the student-

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\(^\text{20}\) Other factors include: total teaching time, average working time of teachers, and distribution of teachers’ time among instruction and other duties. In addition to teachers’ salaries and the age structure of teachers, class size has a major impact on the level of normal education expenditure.
teacher ratio ranges from ten students at ISCED Level 1 in Finland to twenty students in tertiary education in the Czech Republic. See the table below:

### Table 8: Student-Teacher Ratio (2010)

<table>
<thead>
<tr>
<th></th>
<th>Primary education</th>
<th>Secondary education</th>
<th>Tertiary education</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>ISCED 1</td>
<td>ISCED 2</td>
<td>ISCED 3</td>
</tr>
<tr>
<td>Czech Rep.</td>
<td>18.7 (19)</td>
<td>11.2 (11)</td>
<td>12.1 (12)</td>
</tr>
<tr>
<td>Finland</td>
<td>14.0 (14)</td>
<td>9.8 (10)</td>
<td>17.1 (17)</td>
</tr>
<tr>
<td>Sweden</td>
<td>11.7 (12)</td>
<td>11.4 (11)</td>
<td>13.1 (13)</td>
</tr>
<tr>
<td>Slovakia</td>
<td>17.1 (17)</td>
<td>13.6 (14)</td>
<td>14.6 (15)</td>
</tr>
<tr>
<td>OECD average</td>
<td>15.9 (16)</td>
<td>13.7 (14)</td>
<td>13.8 (14)</td>
</tr>
<tr>
<td>EU average</td>
<td>14.3 (14)</td>
<td>11.7 (12)</td>
<td>12.5 (13)</td>
</tr>
</tbody>
</table>

(source: OECD, 2012, T D 2.2 online)

Considering the individual levels of education and the data in the table, let us emphasise the following findings: The table clearly shows that

- at the primary level in the Czech Republic, there are about five more students (pupils) per class than in Finland and seven pupils more than in Sweden; when rounded, the student-teacher ratio in the Czech Republic lags behind the OECD average by three students and behind the EU average by five students;
- at the lower secondary level, the student-teacher ratio in the Czech Republic is more positive; at this level of education, the number of students per class is even lower than the OECD and EU average and the ratios in the selected countries (except for Finland at ISCED Level 2);
- likewise, the upper secondary level of education shows positive values as well;
- however, the Czech Republic lags behind the other countries in tertiary education (see the 20 students per teacher)\(^{21}\).

\(^{21}\) In pre-primary education, there are 13.6 children per teacher (13.9 if assistants are not included) – in OECD countries it is 12.3 and 14.4, respectively, and in the EU21 countries it is 11.6 and 13.4, respectively. (ÚIV, 2012, p. 81)
9.1.2 Average Class Size

As for the indicator called ‘average class size’, we can take a closer look at the Czech Republic only at ISCED Level 1 and 2 (ISCED 1997) as compared to the OECD countries. This is because only the primary and lower secondary levels of education make it possible to compare class size; at higher levels it is impossible to clearly identify a class as a unit, since education (at the upper secondary and the tertiary levels) instead takes the form of courses or study groups connected with the student’s chosen area of study. In addition, only general education programmes are monitored in lower secondary education. After this explanation, let us now focus on the main findings and on comparisons of the Czech Republic with the OECD and EU average and the selected countries.

The *average primary-school class* in the OECD countries has 21.3 students. Still, there are great differences in the average class size. The number of students per class ranges from fewer than 17 in Luxembourg (15.3) and the Russian Federation (16.9) to 27 or more in Chile (27.1) and China (37.1). Almost 50% of the OECD countries have an average primary-school class size of 20 or fewer students. This group includes the Czech Republic (19.9) as well as Austria (18.4), Denmark (19.9), Greece (16.8), Iceland (18.1), Italy (18.8), Luxembourg (15.3), Mexico (19.9), Poland (18.9), the Russian Federation (16.9) and Slovenia (18.4). The average class size in the EU21 countries is 20.0 students. In the G20 countries, it is 24.4. (Ministry of Education, Youth and Sports (MŠMT), 2012, OECD, 2010)

In the OECD countries, the *average class at the lower secondary level of education* (in general education programmes) has more than 23 students. In 25% of these countries, it is 22–25 students per class. There are major differences in this category as well. Among all countries with available data, the number of students per class at this level ranges from 21 or fewer in Denmark (20.7), Iceland (19.9), Luxembourg (19.3), the Russian Federation (18.2), Slovenia (19.6) and the United Kingdom (21.1) to more than 50 in China (54.0). Indonesia and Korea have more than 34 students per class (Indonesia: 36.5; Korea: 34.9). The EU21 average is 21.9 students per class; in the G20 countries it is 26.7. (Ministry of Education, Youth and Sports (MŠMT), 2012, OECD, 2010)

The table below shows the class size in the Czech Republic as compared to the selected countries and to the OECD and EU average. It shows the average number of students per class in the Czech Republic as compared to the aforementioned OECD and EU average and to Slovakia and Finland. The data
are rounded up to whole numbers; for the Czech Republic, the data before rounding are also included.

Table 9: Average Class Size (Number of Students) (2010)

<table>
<thead>
<tr>
<th></th>
<th>CR</th>
<th>Finland</th>
<th>Slovakia</th>
<th>OECD average</th>
<th>EU average</th>
</tr>
</thead>
<tbody>
<tr>
<td>ISCED 1</td>
<td>19.9* (20)</td>
<td>19.4 (19)</td>
<td>17.9 (18)</td>
<td>21.3 (21)</td>
<td>20.0 (20)</td>
</tr>
<tr>
<td>ISCED 2</td>
<td>21.5** (22)</td>
<td>20.2 (20)</td>
<td>20.6 (21)</td>
<td>23.3 (23)</td>
<td>21.9 (22)</td>
</tr>
</tbody>
</table>

* 15.9 in private schools
** 18.9 in private schools (source: OECD, 2012, T D 2.1 online)

The table shows that the class size in the Czech Republic (when rounded) corresponds to the EU21 average both in primary (20 students) and lower secondary education (22 students) (EU average in primary education: 20 students; in lower secondary education: 22 students) but is lower than the OECD average at both levels (primary: 21 students; lower secondary education: 23 students). When compared to Finland and Slovakia, the class size at the primary level in the Czech Republic is similar to that in Finland and is about two students larger than in Slovakia. In lower secondary education, the number of students per class in the Czech Republic is about two students higher than in Finland and one higher than in Slovakia. These are not very significant differences and only confirm proximity to the EU average. The data from the table are also illustrated in the chart below.

Chart 2: Average Class Size in the Czech Republic at ISCED Level 1 and 2 in Comparison (2010)
9.2 How Much Are Teachers Paid?

Teachers’ salaries are reflected in OECD Indicator D3. Its significance and the weight of the findings obtained are related to the following facts (Ministry of Education, Youth and Sports (MŠMT), 2012, p. 82):

- teachers’ salaries represent the largest single cost in education;
- the amount of teachers’ salaries is one of the factors which have an impact on the attractiveness of the teaching profession, as well as on decisions to enrol/not to enrol in teacher education or to leave or return to the profession;
- the pressure on decreasing public expenditure, including wages and salaries in the public sector, has been increasing since 2008;
- the awareness that good financial remuneration and creation of favourable conditions are necessary for attracting and attaining high-quality pedagogues and for ensuring high-quality instruction.

Specific figures related to Indicator D3 can be found in the following categories: starting salaries, salaries after ten years of service and after 15 years of service, and salaries at the end of the career (i.e. the maximum salaries achievable during teaching practice). These factors are monitored and commented upon below.

Sub-chapter 9.2 ('How much are teachers paid?') uses the data and findings published by the Ministry of Education, Youth and Sports (MŠMT, 2012) and in online OECD tables monitoring salary increases/decreases and development trends. In accordance with the OECD methodology for creating its tables, the term ‘salary’ means gross pay less the total sum paid by the employer to the social security and pension insurance system. Salaries are given ‘before tax’. Comparisons of teachers' salaries with the average salaries of
workers with tertiary education aged 25–64 years include full-time, full-year employees. Gross teachers’ salaries are converted using GDP and purchasing power parity (using the data from the OECD database of national accounts). The 2008–2009 school year is the year of reference for teachers’ salaries. The 2008–2009 period is the reference period for GDP and the data reflect inflation as of January 2009 (Ministry of Education, Youth and Sports (MŠMT, 2012). Below is a selection of the main findings from this area:

The table shows teachers’ salaries at the lower and upper secondary level of education in respect of starting salaries, salaries after 15 years of service, and at the top of the scale and in respect of average teachers’ salaries with 15 years of experience per hour of instruction. The data are arranged in two tables – one for ISCED Level 2 and one for ISCED Level 3.

**Table 10: Teachers’ Salaries at ISCED Level 2 (2010, in equivalent USD)**

<table>
<thead>
<tr>
<th></th>
<th>OECD</th>
<th>EU</th>
<th>Slovakia</th>
<th>CR</th>
<th>Finland</th>
<th>UK</th>
<th>Germany</th>
</tr>
</thead>
<tbody>
<tr>
<td>Starting salaries</td>
<td>29801</td>
<td>30202</td>
<td>11028</td>
<td>14916</td>
<td>31351</td>
<td>30204</td>
<td>51058</td>
</tr>
<tr>
<td>After 15 years of service</td>
<td>39401</td>
<td>40211</td>
<td>12688</td>
<td>20217</td>
<td>40451</td>
<td>44145</td>
<td>61784</td>
</tr>
<tr>
<td>At the top of the scale</td>
<td>47721</td>
<td>47287</td>
<td>13680</td>
<td>22522</td>
<td>42879</td>
<td>44145</td>
<td>68592</td>
</tr>
<tr>
<td>Hourly pay</td>
<td>58</td>
<td>61</td>
<td>19</td>
<td>31</td>
<td>68</td>
<td>63</td>
<td>82</td>
</tr>
</tbody>
</table>

(source: OECD, T D 3.1 online)

**Table 11: Teachers’ Salaries at ISCED Level 3 (2010, in equivalent USD)**

<table>
<thead>
<tr>
<th></th>
<th>OECD</th>
<th>EU</th>
<th>Slovakia</th>
<th>CR</th>
<th>Finland</th>
<th>England</th>
<th>Germany</th>
</tr>
</thead>
<tbody>
<tr>
<td>Starting salaries</td>
<td>30899</td>
<td>31346</td>
<td>11028</td>
<td>15533</td>
<td>32276</td>
<td>30204</td>
<td>53963</td>
</tr>
<tr>
<td>After 15 years of service</td>
<td>41182</td>
<td>42470</td>
<td>12698</td>
<td>21449</td>
<td>42809</td>
<td>44145</td>
<td>66895</td>
</tr>
<tr>
<td>At the top of the scale</td>
<td>49721</td>
<td>50139</td>
<td>13680</td>
<td>24117</td>
<td>45377</td>
<td>44145</td>
<td>76433</td>
</tr>
<tr>
<td>Hourly* pay</td>
<td>65</td>
<td>69</td>
<td>20</td>
<td>35</td>
<td>77</td>
<td>63</td>
<td>94</td>
</tr>
</tbody>
</table>
*Hourly pay = pay per hour of instruction*  

The tables clearly show the Czech Republic’s position, which is far below the OECD and EU average in all parameters subject to comparison (starting salaries, salaries after 15 years of experience, salaries at the top of the scale, and hourly pay).

- **Starting teacher salaries in the Czech Republic (2010) are USD 14,916 in lower secondary education and USD 15,533 in upper secondary education. Both values are significantly below the OECD average (ISCED 2: 29,801; ISCED 3: 30,899) and ever further below the EU average (ISCED 2: 30,202; ISCED 3: 31346).**

- **Salaries of Czech teachers with 15 years of experience in lower secondary education in 2010: USD 20,217 in lower secondary education and USD 21,499 in upper secondary education. Both values are again far below the EU average (ISCED 2: USD 40,211; ISCED 3: USD 42,470) and the OECD average (ISCED 2: USD 39,401; ISCED 3: USD 41,182).**

- **As for the maximum statutory pay, Czech teachers active at the ISCED 2 level can earn USD 22,522 and at the ISCED 3 level USD 24,117. Again, they remain deeply below the EU average (ISCED 2: USD 47,287; ISCED 3: USD 50,139) and the OECD average (ISCED 2: USD 47,721; ISCED 3: USD 49,721).**

This confirms that in international comparisons, the Czech Republic is a country with a lower level of teacher remuneration. With the amount of teachers’ salaries, the Czech Republic is in the same group as ‘Poland, Argentina, Hungary, Slovakia, Estonia and Indonesia, where teachers’ salaries in lower secondary education (after 15 years of experience) are at USD 20,000 when converted to purchasing power parity or even below this level’. (Ministry of Education, Youth and Sports, 2012, p. 84)

When taking a more detailed look, we can see another figure subject to international comparison – the ratio between the starting and the maximum salary. The ratio between the starting and the maximum salary in the Czech Republic is 66% at the lower secondary level and 64% at the upper secondary level. In the OECD countries this ratio is 62%; in the EU countries it is 63% and

22The figures are for 2010, i.e. they do not reflect the changes in statutory scales (tables) in the years 2011 and 2012 when the pay of starting teachers was raised. (MŠMT, 2012, p. 84)
64% at the corresponding levels of education. These figures and the figures for some other countries are given in a table in Appendix 3.

The period necessary to attain the maximum possible salary is another important motivating/discouraging factor in the teaching profession. In the Czech Republic, teachers are paid the highest statutory salaries after 32 years of service. The number of years necessary to attain the maximum salary varies widely. It ranges from six years in Scotland to over 16 years in Norway and the Netherlands and up to 40 and 43 years in Hungary and Portugal. With 32 years of experience necessary to attain the maximum salary, the Czech Republic is in the same place as or close to the following countries: Luxembourg (30), Chile (30), Slovakia (32), Indonesia (32), Greece, Australia (34) and France (34). For reasons of clarity, this information is presented in the table below.

Table 12: Number of Years Necessary to Attain the Maximum Statutory Salary (2010)

<table>
<thead>
<tr>
<th>Time span</th>
<th>less than 10 years</th>
<th>11–20</th>
<th>21–30</th>
<th>31 years or more</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Country examples (number of years)</strong></td>
<td>Scotland (6)</td>
<td>Canada (11)</td>
<td>Ireland (22)</td>
<td>CR (32)</td>
</tr>
<tr>
<td></td>
<td>Denmark (8)</td>
<td>Slovenia (13)</td>
<td>Belgium (27)</td>
<td>Indonesia (32)</td>
</tr>
<tr>
<td></td>
<td>New Zealand (8)</td>
<td>Mexico (14)</td>
<td>Germany (28)</td>
<td>Greece (33)</td>
</tr>
<tr>
<td></td>
<td>Australia (9)</td>
<td>Norway (16)</td>
<td>Switzerland (27)</td>
<td>Australia (34)</td>
</tr>
<tr>
<td></td>
<td>Poland (10)</td>
<td>The Netherlands (16)</td>
<td>Luxembourg (30)</td>
<td>Japan (34)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Iceland (18)</td>
<td>Chile (30)</td>
<td>France (34)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Finland (20)</td>
<td></td>
<td>Italy (35)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Israel (36)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Korea (37)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Spain (38)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Hungary (40)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Portugal (43)</td>
</tr>
</tbody>
</table>

(source: OECD, table T D 3.1)

Concluding our look at the wage conditions of Czech teachers in international comparisons, let us compare their pay with the pay of other workers (aged 25-64 years) in other professions with tertiary education. On average in the OECD countries:
• teachers’ salaries in primary education are at 82% of the pay of workers aged 25–64 years with tertiary education;
• teachers’ salaries in lower secondary education are at 85% of the pay of the above group; in upper secondary education they are at 90%.

We recommend that these values be compared with the EU average, the Czech Republic and other selected countries. See the table below. To facilitate the comparison, we recommend doing the Knowledge-Broadening and Practical Tasks.

**Table 13: Comparison of Teachers’ Salaries with the Population Aged 25–64 Years with Tertiary Education (%)**

<table>
<thead>
<tr>
<th></th>
<th>Ratio of teachers’ salaries to earnings of the population aged 25–64 years with tertiary education</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>ISCED 1</td>
</tr>
<tr>
<td>OECD average</td>
<td>82</td>
</tr>
<tr>
<td>EU average</td>
<td>81</td>
</tr>
<tr>
<td>Poland</td>
<td>76</td>
</tr>
<tr>
<td>Czech Rep.</td>
<td>53</td>
</tr>
<tr>
<td>Slovakia</td>
<td>45</td>
</tr>
<tr>
<td>Canada</td>
<td>105</td>
</tr>
<tr>
<td>England</td>
<td>99</td>
</tr>
<tr>
<td>Finland</td>
<td>89</td>
</tr>
</tbody>
</table>

Should we choose from the other main findings on payroll trends, we must point to the following (MŠMT, 2012):

- In the Czech Republic, teachers get the maximum remuneration after at least 30 years of experience (32 years). A similar situation exists in Austria, Chile, France, Germany, Hungary, Indonesia, Slovakia, etc.
- Most countries reported a rise in real salaries between 2000 and 2009. The highest increase (more than 50%) could be seen in the Czech Republic, Estonia and Turkey.
- The majority of the countries reported a decline in teachers’ salaries in relation to GDP per capita in the years 2000–2009. The deepest decrease could be seen in the following countries: Australia, France, Japan, Korea and Switzerland. Still, salaries in these countries (except for Australia and France) remain above the OECD average if related to GDP per capita. The Czech Republic, Denmark and Portugal are on the other end of the scale where an increase is apparent.
9.3 Organisation of Teachers’ Working Hours

Indicator D4 referring to the organisation of teachers’ working hours (teaching time, teaching hours) includes several aspects: the total number of working hours of teachers (total working time), working hours spent at school, teaching time or teaching duty, and the number of hours taught. Different countries can have different specifications of teachers’ working time, which can have an impact on any statistical data. The aspects mentioned above make it possible to capture in statistics that teachers’ workload includes not only contact teaching in a classroom, but also other activities: in some countries these activities must be performed at school, while in other countries the location where these activities should be performed is not specified. Other activities completing teachers' workload (non-teaching time) include, of course, lesson planning and preparation, marking student assignments, meetings, etc. For countries with a large proportion of teaching time, it is good to consider whether it is not at the same time expected that teachers do not devote less time to student evaluation or lesson planning due to the existence of assistants who can perform these activities instead of them.

This sub-chapter will provide an insight into international comparisons of the teaching profession in terms of the teaching time in weeks, days and hours, the working time required to be spent at school, and the total working time (see the table below). It will also contain a commentary on the teaching-time-working-time ratio.

The table in Appendix 4 shows that the Czech Republic is a good deal above the OECD average and significantly above the EU average in terms of the total working hours (working time). As for the number of hours taught, it is above the average at the ISCED Level 1 and around or slightly below the average at ISCED Level 2 and 3. A question begs to be asked: Does teachers’ remuneration correspond to this proportion? We must conclude (using the data from sub-chapter 9.2) that it does not, because it is well below both the OECD and the EU average.

Finally, let us have a look at the comparison of teaching time vs working time. In 20 countries reporting both teaching and working time, the share of teaching time (in proportion to teachers’ working time) ranges from less than 40% (e.g. CR, Denmark, Hungary, Austria, Iceland, Japan) to up to 100% in Brazil.

9.4 Who Are the Teachers?

This sub-chapter provides information on the data resulting from the international comparisons in Indicator D5. The main question is: Who are the teachers? In other (and more specific) words, Indicator D5 and the
corresponding tables and charts show the structure of the professional group of teachers in respect of:

- age: less than 30 years, 31–39 years, 40–49 years, 50–59 years, 60 years or older; teachers aged less than 40 years, including the development trend in this group of younger teachers;
- the percentage of men and women in the teaching profession in general and at individual levels of education;
- selected aspects of qualification requirements such as the teaching practicum required as part of pre-service training, the duration and level of professional education, requirements for continuing education, requirements for another certificate in addition to the education diploma, etc.

Of course, any detailed information on all of the findings goes beyond the scope of this study text. We will focus only on the main findings relating to teachers’ age and gender distribution in the Czech Republic in international comparisons. The age distribution of teachers in international comparisons is given in the table in Appendix 5.

The table in Appendix 5 shows that in the Czech Republic, the teaching workforce at the upper secondary level consists of teachers younger than 30 years (7%), teachers aged 30–39 years (24%), teachers aged 40–49 years (31%), teachers aged 50–59 years (28%), and teachers older than 60 years (almost 9%). This means that at ISCED Level 2, teachers aged 30–59 years account for 84.1% of the total teaching workforce.

In upper secondary education, teachers younger than 30 years account for 4.5%, teachers aged 30–59 years for 80.6%, and teachers older than 60 years for 14.9%.

The main targeted age groups are: less than 30 years, to 40 years, and 60 (or 50) years or older. The data from these age groups show whether there are sufficient numbers of young teachers entering schools, and the proportion of young and older teachers (over 60 or 50 years).

Considering the share of young teachers (less than 30 years) in lower secondary education, the Czech Republic with 7.3% is below both the OECD average (11.6%) and the EU average (10.8%). If compared to all OECD countries subject to comparisons and providing available data (30 countries), the Czech Republic with 7.3% is third from the bottom. If we look at the table, the high share of teachers younger than 30 years in Brazil (18.5%) is definitely worth noting. The Czech Republic is in an even worse position in respect of upper secondary education where the youngest age group of teachers accounts for a mere 4.5%, which is again far below both the OECD average (9.4%) and the EU average. On the other hand, the only representative of the G20
countries with data available for this item, Brazil, again shows a completely different trend than is common in the EU or OECD countries: the share of teachers younger than 30 years (17.5%) is six times as high as the share of teachers older than 60 years (2.9%).

All teacher age groups in secondary education (ISCED 2+3 in total) are compared in the years 1998–2010 (see the OECD online table T D 5.2). When looking at the age group of the youngest teachers (less than 30 years), we can see that the Czech Republic is again third from the bottom (with 5.7%). In 2010, only Germany (4.3%) and Italy (0.5%) had a lower share of the youngest teachers out of the total teaching workforce. The OECD average was 11% and the EU average stood at 10.1%.

With regard to the globally widespread concerns about the ageing population and the ageing of the teaching profession, an ideal situation would be if the share of teachers younger than 30 years were on an even keel with the number of teachers older than 60 years. However, the table makes it clear that there is a balance only in some countries and more at ISCED Level 2 than at ISCED Level 3.

The issue of ageing of teachers can be closed using the conclusions about the situation in the Czech Republic published in ‘České školství v mezinárodním srovnání’ (The Czech School System in International Comparisons) (2012):

‘Just like many other countries, the Czech Republic also has problems with the ageing of its teaching workforce. In 2010, 35% of teachers in primary education were older than 50 years (30% in OECD and EU21); in lower secondary education this percentage stood at 37% (OECD: 33% and EU21: 34%) and in higher secondary education it was 40% (OECD: 37% and EU21: 38%). But what is more alarming is the low share of teachers under 40 years of age in Czech schools (26% in primary education, 32% in lower secondary education, and 23% in upper secondary education).’

(MŠMT, 2012, p. 89)

The answer to the question relating to the gender distribution of teachers in the Czech Republic is less ambiguous with regard to the generally well-known feminisation of the teaching profession. In short, women clearly prevail among teaching staff, and not only in the Czech Republic. Interestingly enough, the share of women declines with the growing level of education at which they teach.
The table below shows these values compared with the average values in the OECD and EU countries and with other selected countries:

<table>
<thead>
<tr>
<th></th>
<th>ISCED 0</th>
<th>ISCED 1</th>
<th>ISCED 2</th>
<th>ISCED 3</th>
<th>ISCED 5, 6</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Czech Rep.</td>
<td>99.7</td>
<td>97.5</td>
<td>73.9</td>
<td>57.8</td>
<td>39.2</td>
<td>-</td>
</tr>
<tr>
<td>OECD</td>
<td>97.1</td>
<td>82.0</td>
<td>68.1</td>
<td>56.3</td>
<td>40.9</td>
<td>66.6</td>
</tr>
<tr>
<td>EU</td>
<td>97.1</td>
<td>86.2</td>
<td>69.5</td>
<td>59.4</td>
<td>41.2</td>
<td>69.8</td>
</tr>
<tr>
<td>Slovakia</td>
<td>99.8</td>
<td>89.3</td>
<td>77.3</td>
<td>71.6</td>
<td>43.7</td>
<td>75.5</td>
</tr>
<tr>
<td>Switzerland</td>
<td>98.0</td>
<td>81.1</td>
<td>51.7</td>
<td>43.4</td>
<td>35.6</td>
<td>59.1</td>
</tr>
<tr>
<td>New Zealand</td>
<td>98.1</td>
<td>83.6</td>
<td>65.2</td>
<td>58.5</td>
<td>51.5</td>
<td>69.6</td>
</tr>
<tr>
<td>Japan</td>
<td>97.1</td>
<td>64.8</td>
<td>40.7</td>
<td>26.4</td>
<td>18.5</td>
<td>46.7</td>
</tr>
<tr>
<td>Turkey</td>
<td>95.2</td>
<td>52.0</td>
<td>-</td>
<td>41.9</td>
<td>40.9</td>
<td>50.3</td>
</tr>
<tr>
<td>Korea</td>
<td>99.2</td>
<td>77.9</td>
<td>67.5</td>
<td>45.0</td>
<td>33.8</td>
<td>55.7</td>
</tr>
</tbody>
</table>

(source: OECD, table T D 5.3)

The table shows that women account for almost 100% of the teaching staff at the pre-primary level (99.7% in the Czech Republic, which is more than 2% more than the OECD and EU average). The percentage of women at the primary level of education ranges from 52% in Turkey to 97.5% in the Czech Republic (OECD and EU average: 82% and 86%, respectively). In lower secondary education, the share of women ranges from 40% in Japan to 77.3% in Slovakia (CR: 73.9%). If we look at upper secondary and tertiary education, the table shows that Japan, Turkey and Korea have the smallest proportion of women at these levels. ‘Men prevail in almost all OECD countries in terms of the teaching staff in tertiary education, except for Finland, New Zealand, the Russian Federation and South Africa’ (Ministry of Education, Youth and Sports (MŠMT), 2012, p. 87). In the Czech Republic the percentage of women in tertiary education is about 39%.
For additional information about other aspects of Indicator D5 monitored within the *Education at a Glance* study, you can again use the data from OECD online tables and charts.

**Review Questions**

1) Explain the following OECD indicators: D2, D3, D4, D5.
2) Specify the main aspects monitored by each indicator.
3) a) Present at least five statistical findings about the Czech Republic for indicators D2–D5.
   b) Compare the findings about the Czech Republic with the average findings for the OECD and EU or G20, if possible.
   c) Compare each finding about the Czech Republic with two other countries.
   d) For each finding, propose at least one situation where these findings could be used. In the case of a project or qualification paper, specify the topic from practical experience or research.
4) Use an appropriate table from Sub-chapter 9.3 to read in which teachers’ salaries relative to the population aged 25–64 years with tertiary education are:
   a) higher and by how much?
   b) lower and by how many percent?
5) Using the relevant data from the tables in Sub-chapter 9.3, make a verbal comparison of teachers’ salaries in the Czech Republic in relation to:
   a) average OECD and EU values;
   b) the data on other countries.

**Knowledge-Broadening and Practical Tasks**

1) Carry out a little survey among the teachers around you. Try to find out:
   a) what is their class size, what are the subject areas taught, and at what stage or in what type of education they are.
   b) Compare your findings to the data presented in Sub-chapter 9.1.
   c) What changes do they make in their teaching style depending on class size?
d) Think over the teaching methods applied in a class with: a) 16 students; b) 33 students; c) 54 students.

e) Discuss the results of your contemplation in a group or record them in your portfolio.

2) Use the *Education at a Glance* study to find data on five countries:
   a) supporting the validity of the principle that can be briefly put as follows: the smaller the class size, the better the educational achievement;
   b) supporting/disputing the validity of this principle.
   (for details about this principle, see the introduction to sub-chapter 9.1)

3) Using the online OECD chart C D 4.3, present additional information about the percentage of teaching time in relation to the total working time of teachers.

4) Broaden your knowledge from this chapter with the data provided in the online OECD table available at [http://www.oecd.org/edu/educationataglance2012oecdindicators-chapterdthelearningenvironmentandorganisationofschools-indicators.htm](http://www.oecd.org/edu/educationataglance2012oecdindicators-chapterdthelearningenvironmentandorganisationofschools-indicators.htm).
   a) Find at least five new numerical values to be compared to the data from the Czech Republic.
   b) Present all types of tables and charts that can be found on this website in respect of Indicator D3.

5) Using the online OECD table T D 5.2, find all countries having in 2010:
   a) a higher percentage of teachers younger than 30 years than the percentage of teachers older than 60 years;
   b) a higher percentage of teachers older than 60 years than the percentage of teachers younger than 30 years.

6) Using the same table, find countries where in the years 1998–2010:
   a) the number of teachers younger than 30 years increased;
   c) the number of teachers younger than 30 years decreased;
   d) the number of teachers older than 60 years increased;
   e) the number of teachers older than 60 years decreased;
   f) the number of teachers younger than 40 years decreased/increased.

7) Explain and interpret your findings. Consider possible explanations and think over any possible reasons and explanations regarding the category of ‘teachers younger than 40 years’ to which the OECD study devotes major attention.

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**Summary**
The regularly updated OECD report *Education at a Glance* also monitors the conditions in the teaching environment focusing on the teacher’s position through its indicators D2–D5. These indicators regard the student-teacher ratio, the number of students in a class (class size), remuneration of teachers, the age of teachers, and the share of women among teachers. All of these indicators and factors have an impact on the financial resources that individual countries must distribute and are generally among the key aspects affecting teachers’ work. Moreover, the share of women in the country’s teaching workforce is also related to issues regarding women’s rights, to the woman’s position in society in general, to traditions and religion, and to the rate of feminisation and emancipation, etc.

**Literature**

References used:

Other sources:
Part II: Current Issues in School Pedagogy

10 School as an Object and Place of Changes: Basic Findings on Theory of Educational Change

Objectives
After studying this chapter:
• You will be able to explain an educational change as an integral part of modern school pedagogy in relation to the developing needs and character of the society.
• You will become aware of the factors and elements of educational changes, including heterogeneity.
• You will have an understanding of the conditions that may facilitate, complicate or completely prevent educational changes.
• You will be encouraged to actively work with resistance against change(s).
• You will understand the cycle of a person’s or group’s reaction, which must be considered in any efforts to push through an educational change.

**Terms to Remember (Key Words)**

<table>
<thead>
<tr>
<th>Educational change (change in education)</th>
<th>reform-type of change</th>
<th>initiation</th>
</tr>
</thead>
<tbody>
<tr>
<td>factors and elements of educational change</td>
<td>innovation-type of change</td>
<td>implementation</td>
</tr>
<tr>
<td>resistance to change</td>
<td>product change</td>
<td>institutionalisation</td>
</tr>
<tr>
<td></td>
<td>procedural change</td>
<td>cycle of a person’s or group’s reaction</td>
</tr>
<tr>
<td></td>
<td>heterogeneity of the change process</td>
<td>conditions of change</td>
</tr>
</tbody>
</table>

In the current Czech (and not only Czech) education system, we see frequent changes of various types and kinds, some of which are temporary while others may be of a more long-term nature (permanent, continual); some may be imposed from above while others may be initiated by teachers, students, parents or school administrators. Here are some examples of specific changes that Czech students, as well as their teachers and parents, have encountered in recent years:

• curricular reform including, but not limited to: implementation of framework and school educational programmes, focus on the development of students’ key competences, emphasis on school and teacher autonomy and team-style collaboration among teachers, new obligation of school self-evaluation;
• cancellation of mandatory reports on school self-evaluation;
• introduction of state school-leaving examinations (‘maturita’);
• closure and merging of schools as part of the ‘optimisation’ of the education system;
• introduction of compulsory nine-year school attendance;
• changes in teaching methods and strategies;
• emergence of alternative schools – greater fragmentation of the school network;
• new options for individual education;
• closing of special-needs schools;
• closing of folk-art schools, replaced by basic art schools;
• formation of CERMAT;
• formation of NÚOV, which later became NÚV;
• and many more.

Educational changes are now an integral part of modern education systems. ‘Educational change’ has simply become one of the key pedagogical concepts and the subject of frequent debate among experts. Having a clearer understanding of this issue will be beneficial for teaching professionals as well as pupils/students, parents and the general public, in other words those who are the principal actors, recipients and agents of education and, consequently, of educational changes. Awareness of educational changes is equally important for the society as such because a society that constantly and dynamically changes due to principles of plurality needs an education system to which all the stakeholders contribute and which is built in an environment of open discussion. The kind of change that is desirable:
a) respects the needs and opinions of all stakeholders (teachers, parents, students, school management, etc.) and upholds the goals of the education system;
b) is systematically planned and consistently managed in accordance with all applicable curricular documents (for the system of curricular documents, see Appendix 6).

Educational changes have often occurred as consequences of political reforms, knowledge-based approaches and procedures, and the experience and experiments of individual teachers and schools. The trajectory of an educational change to a certain degree depends on advances in the science of pedagogy as well as wider changes in the society that is being served by educational institutions. The economy, politics and education are subsystems of the modern society with analogous development (Ellsworth, 2001). The role played by educational changes in society has contributed to the development of the theory of educational change. The first theories of educational change sprung up in the first half of the 20th century (Ellsworth, 2001, Walter, 2004). It is worth noting at this point, however, that the phenomenon of educational change does not need theory in order to occur – it exists independently of theoretical efforts.
Sub-chapter 10.1 defines the concept of educational change, including the main types of change that occur in education, and outlines some aspects of educational change. It also discusses the importance of approaching educational changes as a heterogeneous process (10.2) that is largely dependent on: 1) potential sources of opposition and resistance to change (10.3) and 2) prerequisites and conditions that facilitate successful change implementation (10.4).

### 10.1 Educational Change: Concept and Typology

Educational changes are currently one of the key phenomena encountered in modern education systems and the concept has become an integral part of modern school pedagogy. In addition to ‘educational change’, the Czech language has several other expressions used to describe the same concept, such as *innovation in education, educational and academic reform, change in approach to education, pedagogical innovation*, and, to a certain degree, even expressions such as *modernisation, optimisation, and permanent innovation in education*. Some of these expressions are often used as synonyms although they have specific meanings in the context of educational-change theories.

An educational change is a change within the education system and represents 1) a set of theoretical plans, projects and visions; 2) activities needed for implementation and rollout in practice; and 3) the results of such implementation (Průcha, 2001). The key instruments and dimensions of educational change are:
1/ teaching materials,
2/ teaching methods,
3/ opinions, attitudes, pedagogical concepts and theories (Fullan, 2001).

All three dimensions are indispensable because together they provide a means for achieving specific educational goals. Achieving change in the first dimension is the easiest task. Changing the second one is more difficult, and most difficult of all is securing success in the third dimension (Fullan, 2001).

To summarise, an educational change is a multi-dimensional phenomenon and a heterogeneous process where the following factors and elements come into mutual interaction:

- a) agent of change,
- b) recipient of change,
- c) content of change – innovation,
- d) process of change,
- e) resistance,
- f) environment and conditions.
The situation may be expressed in graphic form using the following modified figure (see Figure 4).

**Figure 1 – Elements of Change (Models of Change, Ellsworth, 2001)**

The **content of change** (of innovation in the above figure) in education may be:

- structure of the education system
- content (and goals) of education
- teaching style
- a combination of the above.

In the light of the above, we can identify several types of changes: a) structural, b) content, c) methodological, d) combined, e) product, and f) procedural change.

a) **Structural change** affects the structure of the education system, the establishment/closing of certain types of schools, changes in the length of compulsory school attendance, etc.

b) **Change of content** affects what is being taught in schools and the objectives of education.

c) **Methodical change** concerns planned changes in teaching methods.

d) **Combined change** is a combination of some aspects of a) – c), i.e. structure, content, method.

e) **Product changes** concern the tangible, concrete elements of education, e.g. new teaching materials, new tools for identifying the needs of the client system.

f) **Procedural changes** are neither tangible nor concrete but may be structured, e.g. the way in which a teacher manages a class, a shift from...
a centralised to a decentralised approach to problem-solving, or a motivational programme for faculty. Both types of change require time and their acceptance depends on individual characteristics. In both cases it is true that the greater the complexity of the change, the more time is needed. (Hall, Hordová, 1987, In Vrabcová, 2007).

At this point we will focus on two other types of educational change:

- reforms,
- innovation.

The two types will be explained in greater detail in order to clarify and deepen the reader's understanding of the frequent changes that are taking place in education. The difference between a reform change and an innovation lies in the **scale, initiative and manner of dissemination of the change**.

An **innovative educational change** represents an essential transformation of the system, but typically concerns only a specific element (or elements) of it and is initiated by the lowest or medium levels of the hierarchy (various expert groups, professional associations, parent (and student) associations, schools, municipalities or individuals). A typical example of an innovation is the foundation of most alternative schools, with only a handful of exceptions.

On the other hand, a **reform-type educational change** originates from the highest levels of the system and usually concerns the most fundamental aspects of the entire system or those elements that are present within the entire system. Examples of reform include changes following new legislative regulations (school laws, rules, decrees, etc.) and projects initiated by high-level institutions such as the Ministry of Education. To cite specific cases, we can mention *Further development of the Czechoslovak educational system* (1977), *National program for education development*, framework educational programmes, and other documents.

Of course, teachers are involved in the reform-type changes, but the reforms are not initiated by teachers or school managers. They are imposed from higher levels of the system. A reform typically begins with a legislative proclamation (specification of actions, goals and timelines) by the agencies responsible for macro-management of the education system. The implementation and efficiency of a law-based reform are monitored through pilot projects, tests and other initiatives (projects, DVPP, etc.). Reform-type changes include or should include monitoring of how schools and other educational establishments manage to meet the initial rules as well as rules developed on an ongoing basis, but an equal measure of attention should be paid to supporting education providers in the implementation of the changes (for more details on the support available to schools in the highly specific and now widely-discussed area of self-evaluation, see Chapter 11).
The following figure shows the main differences between educational reforms and educational innovations.

<table>
<thead>
<tr>
<th>Reform</th>
<th>Innovation</th>
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<tbody>
<tr>
<td><strong>MACRO-MANAGEMENT</strong></td>
<td><strong>MICRO-MANAGEMENT</strong></td>
</tr>
<tr>
<td>1. Draft reform and incorporation into the education system</td>
<td>3. Incorporation into the education system</td>
</tr>
<tr>
<td>2. Testing, pilot projects</td>
<td>2. Testing, pilot projects</td>
</tr>
<tr>
<td>3. Support with implementation</td>
<td>1. Proposal of innovation</td>
</tr>
</tbody>
</table>

**Figure 2 – Innovations and Reforms in Education**

With this definition, reforms also include educational changes that envisage some innovative elements as parts of reform implementation but that are still initially designed on the macro-management level. An example of a reform with innovative elements would, therefore, be the current multi-level curricular reform\(^{23}\) that ‘opens the way to a true bottom-up curricular reform and supports changes directly on school level, which is an approach that has proven successful abroad’ (Spilková et al., 2004, p. 17).

10.2 Process and Stages of Change: How are Changes Implemented?

When talking about the process of change, we must keep in mind its heterogeneous character. In context of the Czech Republic, the process of change is usually divided into three stages:

1. relaxation of the existing status-quo,
2. transformation,

We shall now compare these three stages with the three-phase model developed by Fullan (2001) that identifies the following steps:

1. initiation,

\(^{23}\) In this instance, the term ‘curricular reform’ refers to what is, hopefully, well known to the reader from previous teacher-training programs and from the fact that it has been underway in the Czech Republic since 2001 as part of a system of curricular documents.
2. implementation,
3. institutionalisation.

In terms of the time needed to get from initiation to institutionalisation, it is a very long process. A sober estimate for a complex change is between three and five years. In the case of larger-scale reforms, we may be looking at five to ten years.

The following table outlines the phases of change according to Fullan (2001) and Urban (2003).

**Table 15: Comparison of Change Management Phases and Models**

<table>
<thead>
<tr>
<th>Phases of change (Urban, 2003)</th>
<th>Phases of change (Fullan, 2001)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Relaxation of status quo</td>
<td>1. Initiation</td>
</tr>
<tr>
<td>2. Transformation</td>
<td>2. Implementation</td>
</tr>
<tr>
<td>3. Stabilisation</td>
<td>3. Institutionalisation</td>
</tr>
</tbody>
</table>

- Fullan’s phase I: **Initiation** (also referred to as mobilisation, adoption or acceptance) is a process that results in a decision to accept or continue with the change.
- Fullan’s phase II: **Implementation** (or initial use) usually refers to the first two or three years of application of the change, including the first experience with the new idea applied in practice.
- Fullan’s phase III: **Institutionalisation** (or incorporation, routine building or continuation) refers to the period when the change either becomes part of the system or disappears from it due to a decision to postpone it or due to exhaustion. The transition between phase II and phase III is imperceptible. Phases II and III of this concept merge. (Fullan, 2001)

When discussing Fullan’s first and second phases (Fullan, 2001), we must keep in mind the aspects that influence change initiation and implementation at the time of first use; Fullan (2001) describes eight such factors: 1) existence and quality of innovation; 2) attitude to innovation (content of the change); 3) support on the level of national educational policy and on the level of the school; 4) support by teachers; 5) external agents of change; 6) pressure from the community; 7) new concepts – financial resources; 8) dedication to problem solving. Furthermore, resistance may occur at any of the three stages as a kind of obstacle that the change, or rather its agents and implementers, must overcome (for more details, see the next chapter).
10.3 Potential Obstacles to Changes and Resistance as a Natural Phenomenon

Although an understanding of the heterogeneous nature of change implementation and awareness of the fact that change is a long-term process may help smooth the way for the rollout of changes (see Chapter 9.2), another equally important prerequisite for a successful change and its acceptance by the social system is acceptance of the change by individuals. In the words of a great theorist of educational changes, Ellsworth (2001): ‘If the number of negative decisions reaches a certain level, innovation will disappear even in the most centralised of systems.’ Both the social and individual level thus become the centre of attention either in terms of the conditions that facilitate change implementation (see the next chapter) or in terms of potential obstacles making the change more complicated or even impossible, from the point of view of resistance (see this chapter).

Resistance to change may stem from several sources (Rogers, 1969):

- the process of change itself, or rather the basic elements of change: the content of innovation, the intended recipient or agent of change (in other words, the human factor and actors of change, author’s note)
- the environment in which the change is to take place, including indirect actors (author’s note).

At this point, we shall discuss the second type of resistance by the people involved in the change – both direct and indirect human actors of change. This potential source of resistance, i.e. the people involved in education – educators, students, parents and other school partners and educational actors, are natural players in educational changes, especially so in the case of changes that have personal consequences. According to Urban (2003, In Prášilová, 2006), some 60%–80% of school employees are typically against changes at the beginning of the implementation of new programmes. This type of resistance grows out of a ‘cycle of reaction’ by persons or groups of persons that are faced with changes; the cycle consists of four stages:

1. a tendency towards immediate denouncement of the potential for change,
2. attempts to resist changes
3. interest in exploring changes (which, however, comes only once it is realised that resistance is futile and that there may be something positive about the changes),

To a great extent, resistance is a natural component of any change and must be anticipated from the beginning and the implementers must work with it. On the other hand, initial resistance may in some cases contribute to the failure to implement educational changes, while in other cases it may be an
indicator of poorly, unclearly and insufficiently structured change-planning or its lack of transparency. (Lazarová, 2005, In Vrabcová, 2007)

From the point of view of a large group of educators and teachers, educational changes may pose a professional and psychological threat. After all, resistance to change may be considered a natural human reaction, frequently encountered in organisations such as the army, the police, the state healthcare system and, indeed, education, that makes the people working in them feel protected from the market. The causes of resistance to change often lie in the fear of losing one's position, income or life security (Obst, 2003). Prášilová has also identified other possible causes of resistance to change, including:

- fear of the unknown,
- a tendency towards inertia of behaviour,
- satisfaction with the status quo,
- feelings of inferiority,
- expected devaluation of old abilities and skills,
- failure to understand the need for change,
- existing internal culture in the organisation that opposes change,
- fear of time demands,
- professional demands of the new situations and tasks,
- loss of position of power,
- loss of familiarity with everyday tasks,
- poor timing of the change,
- a different personal understanding of the situation. (Prášilová, 2006, p. 197)

10.4 Prerequisites (Conditions) for Easier Change Implementation

Among the possible sources of resistance to change, and, at the same time, if fulfilled, important factors facilitating change implementation, are conditions under which a change occurs. Let us turn to eight conditions that are considered important by Ely (1990) for successful change implementation:

1. dissatisfaction with the status quo,
2. sufficient professional understanding and skill held by the people responsible for the implementation of innovations,
3. easy access to the resources necessary for innovation,
4. enough time for the implementers to learn, adapt, integrate, and reflect on their actions,
5. reward/positive motivation for those involved in the change,

---

24 In the Czech Republic, resistance to change is studied in more detail by psychology (e.g. Lazarová, 2005, Řezáč) and the theory of management (specifically for school management see e.g. Obst, 2003, Prášilová, 2003).

25 The term 'implementer' means the agent implementing the change or contributing to the implementation.
6. expected and supported participation,
7. necessary support by the public and other public players,

We shall discuss the first five conditions in greater detail.

1. The **first condition – dissatisfaction with the status quo** – seems to be the most important one. Since change tends to be uncomfortable, the status quo must be perceived as unacceptable in order to win participants over to the change. There may be many causes for dissatisfaction (internal – for example with textbooks, and external – for example with pressure by the state to achieve high scores in comparative tests). We must also consider who is dissatisfied: whether dissatisfaction prevails among parents, teachers, school managers, etc. (Ellsworth, 2001)

2. The second condition, **sufficient professional understanding and skill** held by the people responsible for the implementation of innovations, is, in the opinion of Ellsworth (2001), the least often fulfilled prerequisite and, as such, is one of the most common causes of change rejection or continuity disruption. He believes that the core of the problem lies in poor preparation of teachers and other members of school staff. Ellsworth thinks it rather ironic that poorly designed teacher training results in a situation where teacher education often responds too late, at the last minute, so to speak, to the implementation of planned changes.

3. The third condition is **easy access to change resources** (computers, publications and wages for teachers, teacher/faculty training, textbooks, etc.). In the absence of resources, achieving the educational goals that drive the change is unrealistic or at least very difficult. Change implementers have the responsibility of providing adequate resources to every student and teacher on the principle of equal opportunities, regardless of students’ socioeconomic or family background.

4. The fourth condition for successful change implementation is the implementers having **sufficient time**. Having enough time, ideally but not necessarily paid time, is indispensable for the development of new competences, creation and modification of supportive tools, adaptation, reflection, etc. However, simply providing a lot of time for the further education of change participants is not a good approach, because it increases the time these people must spend at work, which in turn tends to boost resistance: employees may then be less likely to actively participate in the change, especially in cases where they feel that the change will put higher demands on their time. (Ely, 1990)

5. As for the fifth condition – **reward and motivation** – it must be noted that in terms of efficiency, the reward (or benefit) should ideally come in the form of the benefits brought about by the change itself (Ellsworth, 2001). And yet, there are examples of changes where the participants draw neither benefit nor advantage from their implementation. In such cases, it is imperative that there be an external reward, which may come in the form of shorter
working hours, assistance with administrative tasks, assistance with correcting students’ work, development of study materials for students, higher wages, or special financial benefits (Ely, 1990).

**Review Questions**

1) Explain the term ‘educational change(s)’ and the factors influencing the course of the change.

2) a) Specify the main differences between the following types of educational changes:
   - reform-type – innovation-type change;
   - structural – teleological - methodical – combined change;
   - product – procedural change.
   b) Try to apply the theoretical knowledge about educational changes you have acquired and based on your own experience with the school system: search and state specific examples of individual types of changes;

3) explain why educational changes can arouse/often arouse a dismissive attitude/resistance among teachers, students, parents, the public.

4) a) Explain the term ‘heterogeneity’ of the process of educational changes, including its stages.
   b) Apply the knowledge about resistance and heterogeneity of changes on your own experience with changes in Czech education on specific examples of educational changes that you have stated under point (2b).

**Knowledge-Broadening and Practical Tasks**

1) Use the type of changes described above to describe examples of educational changes from your own knowledge.

2) Classify and categorise examples of changes given at the beginning of the chapter by specific types of changes.

**Summary**

An educational change (change in education) an essential phenomenon in the current school system. As a term, it is a) an integral part of the object of modern pedagogy; b) a multidimensional phenomenon; and c) a heterogeneous process. The main factors and elements of each educational change include: a) an agent of the change; b) a recipient of the change; c) the content of the change; d) the process of the change; e) resistance; and f) the environment...
Resistance is a natural part of educational change with us, people, being a potential source of resistance (in the school system, this means educators, students and parents as the intended recipients or agents of change); this type of resistance also results from the cycle of reaction of the person or group exposed to change.

References


Other Sources


11 School Self-evaluation in the Czech Republic and Inspiration from Abroad

Objectives

After studying this chapter:
• You will have an insight into the basic terms and regulations related to school self-evaluation.
• You will understand the desirable course and progress of the self-evaluation process: its stages and steps.
• You will become familiar with the rules making self-evaluation more efficient and beneficial.
• You will be able to: 1. give some examples from abroad to support school self-evaluation; 2. specify the self-evaluation tools available to schools in the Czech Republic; and 3. characterise the current system of support of Czech schools in respect of self-evaluation.

Terms to Remember (Key Words)

<table>
<thead>
<tr>
<th>school self-evaluation</th>
<th>Blue Ribbon School Program</th>
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<tbody>
<tr>
<td>school self-assessment</td>
<td>BRUK</td>
</tr>
<tr>
<td>examples of inspiring</td>
<td>4E Rules</td>
</tr>
<tr>
<td>or good practice</td>
<td>Qualis</td>
</tr>
<tr>
<td>mutual learning</td>
<td>peer review</td>
</tr>
</tbody>
</table>

11.1 Initial Reasoning of the Contemporary Relevance of School Self-assessment

The issue of school self-assessment, i.e. self-evaluation, is a current phenomenon in modern pedagogy and modern school systems. However, we need to realize that it still remains a fairly new phenomenon in the Czech school environment. Its contemporary relevance is related not only to the legislative duty of Czech schools to perform school self-evaluation and reflect their results in an annual report on their activities, but also to other aspects such as:

• decentralisation of school-system resources and management;
• strengthening of school autonomy and administrative units in the school system;
• shifting of responsibility for the articulation of specific objectives, strategies, and educational visions to the level of individual schools (within the development of school educational programmes where self-evaluation is a source of feedback, it contributes to the detection of school and student needs, etc.);
• schools’ growing need to make an effort when fighting for students;
• the need to gather and use materials to present the school and create its image in order to emphasise its qualities and visions of future development, etc.;
• the current trend toward more intensive engagement of teachers and other school workers and partners in the self-evaluation process, including planning and evaluation.

What exactly does school self-evaluation comprise? How is school self-evaluation defined? What are its functions and what is the ideal course of this sophisticated and in fact never-ending process? Sub-chapters 11.2–11.3 seek to clarify these issues. Attention is also paid to the fundamental information related to its legislative basis. In addition, this text contains a few examples illustrating the self-evaluation practice of schools abroad. Sub-chapter 11.4 is concerned with some options for supporting schools in the Czech Republic in their self-evaluation efforts and provides methodological inspiration.

11.2 Basic Definition of School Self-assessment/Self-evaluation

In general school practice and the legislative regulations, the term ‘school self-evaluation’ is also denoted as school self-assessment. This happens despite the fact that, theoretically, these two terms (evaluation vs. assessment) should not be considered interchangeable. But the meaning of school self-evaluation activities is definitely not significantly affected by this situation.

To have a basic definition, let us stick to the following: School self-evaluation is ‘a cyclical, systematic and system-related process initiated and implemented by school-life actors’ (Poláčová Vašťatková, 2012, p. 13). It is based on the application of a variety of methods and tools, i.e. (self-)evaluation tools, with the aim of collecting information and getting feedback about the life of a concrete school where the self-assessment organisers are active in order to improve the quality of the school.

In legislation, the amendment to Act No. 472/2011 Sb. (Coll.), amending Act No. 561/2004 Sb. (Coll.), the Education Act, as amended, is crucial for the current issue of school self-evaluation. This amendment repealed Regulation No. 15/2005 Sb. (Coll.), specifying the terms and conditions of implementing self-evaluation. Below are the consequences of this legislative amendment from 2011:
• schools have an obligation to perform school self-evaluation and reflect its results in an annual report on their activities;
• schools do not have an obligation to prepare a report on school self-evaluation;
• schools can choose the periods in which they will perform self-evaluation;
• the school principal no longer needs to discuss the self-evaluation structure’s design with the board of teachers (amendment to Act No. 472/2011 Sb. (Coll.), Poláchová Vašťatková, 2012, p. 14).

In the context of the broader and more general educational term (i.e. both external and internal evaluation), school evaluation represents:

• an internal type of school evaluation, and
• evaluation performed at the school inter-level as one of four levels where evaluation can be performed in the school system in general (Poláchová Vašťatková, 2012, p. 11)

The primary purpose makes a fairly substantial difference between self-evaluation (internal evaluation) and external school evaluation. External evaluation primarily aims at proving quality, ideally in combination with increasing quality. In self-evaluation, it is in fact vice versa, i.e. self-evaluation seeks to improve quality first and only then prove it.

For a school, self-evaluation is important for its

1. process of quality identification;
2. impulse for additional work, for sustaining or improving the quality of the school;
3. method of improving quality;
4. means to prove, sustain or improve the quality of work in a qualified manner;
5. control and assessment;
6. research aimed at obtaining certain findings;
7. process of self-reflection, planning and additional development (Rýdl, 1998, In Prášilová, 2006);
8. starting point and basis for accountability²⁶;
9. starting a dialogue at school;
10. controlled and sustainable changes;
11. necessary prerequisite for useful external evaluation;
12. starting point for the preparation of an annual report, school self-evaluation report,
   plan of future development, school presentation, etc.;
13. means to create and strengthen school memory thanks to the continuous keeping of self-evaluation documentation;
14. set of a variety of interconnected activities bringing answers to questions²⁷ related to approaches to the school’s quality management.

²⁶ Accountability = school accountability in respect of the public.
²⁷ They include questions like: 'What are we good at? Where are we? Where do we want to go?
Further to the function specified in (10) and the statement that self-evaluation also represents a controlled and sustainable change, the lively discussions accompanying the beginnings of the legislative basis for school self-evaluation in the Czech environment (2004) add a new dimension to the entire process. Our current awareness of the necessary and natural level of resistance and of the heterogeneous and gradual process of accepting and disseminating a change (see Chapter 8) at least partly uncovers the ambivalent acceptance of the obligation of schools to perform self-evaluation. Although the beginnings of school self-evaluation in the Czech Republic were accompanied by a combination of excited acceptance and vehement rejection of this obligation and its meaning by teachers, other educators and the public, the number of positive opinions has increased in recent years. The example below contains the illustrative answers of some teachers to the question of whether they regard school self-evaluation as a benefit or useless thing?

**Sample teacher statements about Self-evaluation: a Benefit or a Something Useless?**

'Self-evaluation is a source of systematic character, certainty and more secure planning.'

'Without self-evaluation, I cannot make any progress. It cannot be done. For me, it is a tool for fighting against routine (I apparently saw this before, but subconsciously). Self-evaluation is in us …'

'For me, self-evaluation is like fighting operational blindness … It is a good thing.'

'I see self-evaluation as a way towards communication and clarification of priorities, as a tool to communicate and cooperate.'

'It provides a view of the development we have gone through. It increases the school’s quality, improves the approach of the children (the children enjoy it more), the teachers enjoy it more, the parents are more motivated, and there is better field cooperation (see drama with dancing, etc.).'

'It brings self-reflection to teachers, to students, to principals; it is a source of improvement suggestions, a defence against routine.'

'Self-evaluation also improved communication; we are not afraid to give our opinion. It supports a safe environment. We can see where we have moved.'
11.3 Optimal Course of School Self-assessment (Self-evaluation)

The optimal course of school self-evaluation can be specified using the six basic stages and the so-called 4E rules.

Self-assessment is optimal, with balanced costs and effects, and contributes to school development only if it meets the 4E rules. Self-evaluation contributing to school development and meeting the 4E rules must be (Lednický, 2000, In Poláchová Vašťatková, 2012, p. 20):

- effective;
- efficient;
- economical;
- equal.

Optimal school self-evaluation has the following stages:

1. motivation;
2. preparation;
3. implementation;
4. interpretation;
5. correction;

If school self-evaluation is to help improve and sustain the quality of a school, all the above stages must take place even though in practice, some stages cannot be distinguished because they overlap. This is also why we will spend some time on the optimal course of self-evaluation in respect of specific steps that can make school self-assessment more efficient, more effective, more economical and more equal. In other words, to meet the 4E rules as the necessary conditions for the optimal course of self-evaluation, the following steps must be taken (Poláchová Vašťatková, 2012, pp. 30–31):

1. **Make it clear to yourself why the evaluation must be performed.**
2. **Set targets.**
3. **Set up an evaluation team:** specify team roles and responsibilities, including a team leader. Engage representatives of various school-life actors in the team (students, teachers, parents).
4. Prepare a self-evaluation plan (project).  
5. Determine ethical principles.  
6. Collect data and information.  
7. Analyse your source materials and interpret your findings.  
9. Create and publish evaluation reports and set the date for the next evaluation activity.  
10. Implement the adopted measures.  
11. Implement meta-evaluation. Make a thorough and critical assessment of the current activities; consider their meaningfulness and methods of implementation. Answer the following question: 'Have we lost anything or have we gained anything through the self-evaluation process?' (Poláčová Vašťatková, 2012, pp. 30–31)

11.4 Support of School Self-evaluation: Inspiration from Abroad

Instrumental, methodological and ideological support of schools is a very important factor in school self-evaluation meeting the 4E rules above. This support can take a variety of forms, which is also obvious when we look abroad. The forms of school support in self-evaluation and quality development include:

- **good practice examples, including the use of the virtual school network** as a means of supporting collaboration and experience and good-practice sharing among individual schools (e.g. the Finnish project 'Virtual School' or the Slovenian project 'Learning School Network' are based on the principle of online sharing of good practice). To a certain extent, the US 'Blue Ribbon School Program' can also be included among the best practice examples ('No Child Left Behind – Blue Ribbon School Program') (for details, see below).

- **databases, information systems and registers, also at the level of national information systems, to evaluate and develop quality in education**, existing as a source of information and practical assistance for municipalities and schools when performing self-evaluation. This form of support can be illustrated by the existence and functioning of the SIRIS and  

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29 Include objectives and their justification in your plan, as well as evaluation areas, criteria/indicators, the required quality, time deadlines, target groups, responsibility for particular evaluation activities and for the whole, tools, necessary sources, decisions on involvement of external consultants: moderator, critical friend (peer), specification of methods, tools and techniques, as well as of sources of information.

30 Refer to 'Autoevaluace školy v zahraničí Pohled do evaluačních systémů ve vybraných zemích' (Vrabcová a kol., eds., 2012).
SALSA databases or the SALAR system in Sweden or self-evaluation supplementing the MCAS (Massachusetts Comprehensive Assessment System) and DART (District Analysis Review Tool) systems, continuing the activities of the Center for School and District Accountability in Massachusetts.

- The (self-)evaluation system in the American state of Massachusetts is catered for by District Standards and Indicators defining the areas which schools need to pay attention to if they want to report good results in all areas. The Center for School and District Accountability gathers information about schools, provides (self-)evaluation tools, and performs school checks at ten-year intervals, or manages the DART (District Analysis Review Tool) electronic information system. The state’s Essential Conditions for School Effectiveness are also important, formulating eleven conditions available to schools. (Rosolová, 2012, pp. 330–333)

- The SALAR system is used as a contact platform for external and internal evaluation entities, as a platform for cooperation between the National Agency for Education and the National School Inspection Authority. 'Within its assistance provided to local administrations, SALAR seeks to collect and present a set of comparative indicators. In compulsory rounds, this includes the results of national tests, final evaluation, and the share of young people continuing education at the upper secondary level.' (Vrabcová, Rýdl, 2012, p. 303)

- The SALSA database can be used by the general public to obtain information about schools and administrative units. SIRIS is an online information system of the National Agency for Education which has been in operation since 2001 and which contains results on the quality of the school system (Vrabcová, Rýdl, 2012, p. 304)

Each of the systems or databases identified above has its own specifics, of course. But what they have in common is their potential to be used by schools for more rooted self-reflection and fairly fast mapping of to what extent a school meets/does not meet the respective conditions, what makes it different from other schools, etc.

The centrally controlled development of tools or criteria facilitating the school’s possibility to see its qualities. This can also be proved by the online Swedish questionnaire BRUK or by the support of another quality-establishing tool, the National Agency for Education’s QUALIS. In England, this form of support is illustrated by the existence of a system of self-evaluation forms developed by Ofsted (Office for Standards in Education, Children’s Services and Skills), including the web-based application RAISEonline (Reporting and Analysis for Improvement through School Self-evaluation) (Seberová, Malčík, 2012, pp.
In Massachusetts they use the inspiring tool for school self-evaluation called *Essential Conditions for School Effectiveness* or their own *District Standards and Indicators* (see above).

Other forms of support and assistance include **school counselling services** operated by municipalities/regions with the aim of helping schools (and not only with self-evaluation), and an electronic system which collects and analyses student opinions on lessons and other school-related affairs.

Although the US education system is not among the best ones in terms of educational outcomes, the US federal Blue Ribbon School Program is highly inspiring for school self-evaluation (as is its modified version from 2002, *No Child left Behind*31), and the Massachusetts evaluation system can also be viewed as a model. We find the Blue Ribbon School Program inspiring for school self-evaluation as it is highly motivational. To be included in the programme, schools must meet one of the following criteria: to report excellent results in language and mathematics tests (there must not be major differences in the results of individual student groups) and to show corresponding year-on-year improvements over the past two years. The programme is motivational not only in respect of efforts to attain better educational results but also in respect of self-evaluation, as the programme application works in fact as the school’s self-evaluation report submitted online. The programme supports and positively motivates school development and quality improvement through indirect financial benefits, the presentation of prestigious awards, the option to be presented on the official ministry’s website, etc. (Rosolová, 2012, pp. 323–328)

### 11.5 Support of School Self-evaluation in the Czech Environment

As regards school self-evaluation in the Czech Republic, let us discuss the system of support set up and tested in pilot operations within the ‘Road to Quality’ project (NÚV, 2009–2012). This project’s outcomes are designed for schools and all educators and other school partners currently or potentially participating in school self-evaluation in the Czech Republic. This system has four main pillars (Chvál, 2012):

1. evaluation or self-evaluation tools (study text author’s note);
2. mutual learning by schools;
3. self-evaluation counselling;
4. systematic education course for self-evaluation coordinators.

Detailed information, publications and other inspiring details can be found in the section ‘Výstupy národního projektu Cesta ke kvalitě’ (Outcomes of the national project ‘Road to Quality’) available at [http://www.nuov.cz/ae](http://www.nuov.cz/ae)

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31 (*No Child Left Behind*, 2001)
Now we will introduce the principle of schools’ mutual learning at the theoretical and methodological level and then we will focus on specific examples of self-evaluation tools.

11.5.1 Basic Characteristics of the Second Pillar of Support – Mutual Learning

Mutual learning by schools is a procedure within constructivist learning based on the principle of experience-sharing and authentic evaluation, i.e. evaluation directly supporting learning. Mutual learning has various forms (e.g. brief interviews among pedagogues, methodical associations at the school and regional level, portals to share instructional materials). Now let us point to two specific forms of mutual learning:

1. **inspiring (good) practice examples.** Equivalent terms include ‘good-practice examples’, ‘best-practice examples’, and ‘smart practices’ (Košťálová a kol., In Chvál, 2012). We have already mentioned good-practice examples in the previous sub-chapter.

2. **peer review**

   1. **Inspiring practice examples** are in fact school case studies. In school self-evaluation, these examples include the inspiring self-evaluation experience of selected schools. Based on the 18-month collaboration of a variety of authors of inspiring practice examples and schools, the ‘Road to Quality’ project has brought some thirty inspiring practice examples. They are generally available in the ‘Výstupy’ section (Outcomes) at [http://www.nuov.cz/ae](http://www.nuov.cz/ae) and [http://rvp.cz](http://rvp.cz) and can serve as an example, sharing experience with schools, pedagogues and individual teachers from practice or student-teachers who are yet to encounter school self-evaluation in practice. They are, of course, also valuable for other school partners and parents.

   2. **So-called peer review** is usually conducted between two similar schools where one is subject to evaluation and the other acts as a peer reviewer, a critical friend or peer. This form is suitable for top-level schools with a suitable person as the leader or another member (of the top management) supported by the principal, for consistently working schools with experience in school self-evaluation that can find adequate partners. It must be noted that this should really be a peer review, not an inspection (Chvál a kol., 2012).

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32 You should know the principles of constructivist learning from the previous didactic disciplines, in particular general didactics, including: a) learning in three stages: 1. evocation, 2. reflection, 3. realisation; b) increasing internal motivation to learn; c) self-control and feeling of responsibility for one’s own learning; d) independent work and individual learning activities; e) engagement of close and distant environments in the learning process; and f) reflection, cooperation and seeking relations from various sources of information and knowledge (Košťálová a kol., In Chvál, 2012, p. 141).
11.5.2 Basic Characteristics of the First Pillar of Support – Self-evaluation Tools

The term ‘self-evaluation tools’ denotes a subgroup of evaluation tools that can be used for school self-assessment. More broadly speaking, the term ‘evaluation tool’ means a method, technique or data-collection procedure (including recommended analysis and evaluation) or another methodological procedure supporting different stages of the evaluation process. In the context of the trend towards autonomy in education, the choice of self-evaluation tool depends on the school’s opinion as the user of the tool. An appropriately selected or created tool should contribute to finding answers to the school’s questions during critical reflection, in the evaluation of its current activities, and in planning its future development (Chvál a kol., 2012, p. 63).

Thanks to the ‘Road to Quality’ project, Czech schools now have some thirty tools available that were created and tested in pilot operations as part of their methodological support and inspiration.

Although the ‘Framework for School Self-evaluation’ is not obligatory for schools, it can offer efficient help to schools in their pursuance of their legislative obligations as it in fact plays the role of a methodical guide through the self-evaluation process. The internal structure of the Framework covers all areas of quality of the school’s work where users are invited to make evaluations on scales attached to a range of criteria. The majority of other tested and developed evaluation tools are intended to collect evidence for the required assessment. (Chvál a kol., 2012, p. 67)

The ability to cover the quality of a school’s work in as many areas as possible was the main criterion in the selection of the evaluation tools. The Framework also draws on the areas defined in Regulation No. 15/2005 Sb. (Coll.) or its amendment No. 225/2009 Sb. (Coll.), i.e.:

1. conditions for education;
2. content and course of education;
3. school support to students, cooperation with parents, impact of relations between the school, students, parents and other stakeholders on education;
4. educational outcomes of students;
5. school quality and management, quality of work with human resources, quality of continuing education of educators;
6. level of the school’s work results, in particular with regard to the educational conditions and economic resources.
There are only two evaluation tools applicable to the last area (‘Level of results’): Both the *Framework for School Self-evaluation* and *School Documentation Analysis* enable schools to carry out a relational assessment with regard to the character of the area subject to assessment. (Chvát a kol., 2012, p. 68)

The scheme below shows an overview of the tools according to the dominant method of work with the tool and in relation to the procedural depiction of the (self-)evaluation cycle: planning – implementation – evaluation – review.

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Figure 2: System of (Self-)evaluation Tools Offered to Schools in the Czech Republic (Output of the Road to Quality Project)

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As for the dominant methods of work, they can include: written (electronic) questioning of students, parents, teachers or others; a group interview with students; observation of and discussions about teachers; or complex methods (i.e. methods including monitoring, evaluation, proposal of measures, inclusion of multiple tools, document analysis). (Chvát, 2012, pp. 70–71)
A summary of all tools is provided in Appendix 9. More detailed information about individual tools can be found in the 'Výstupy' (Outcomes) section at http://www.nuov.cz/ae and http://rvp.cz (also, see Literature References).

**Review Questions**

1) Explain the following terms:
   a) school self-evaluation (self-assessment);
   b) evaluation tools;
   c) internal/external school evaluation.

2) Specify the benefits of well-performed school self-evaluation.

3) Describe the self-evaluation process – use stages and steps.

4) Apply the 4E rules and formulate the self-evaluation rules beneficial for a school.
5) Give examples where the school is a) the object of evaluation and b) the subject of evaluation.

6) Describe the support system of self-evaluation in Czech schools, in particular its pillars, created and tested in pilot operations as part of the Road to Quality project.

7) Explain what is meant by ‘mutual learning’ by schools, including options for its application within school self-evaluation.

8) a) Give at least five examples of school support from abroad.
   b) Describe the system of evaluation tools developed and tested within the Road to Quality project.
   c) Compare the examples from abroad with examples of school self-evaluation tools and support in the Czech Republic.

Knowledge-Broadening and Practical Tasks


2) a) Familiarise yourself in more detail with individual tools, in particular with:
   - parents’ survey;
   - teachers’ survey;
   - school documentation analysis;
   - good school;
   - readiness for change;
   b) Test these tools depending on your possibilities.
   c) Choose two tools which you regard as
      - most useful for schools
      - most effective
      - most time-consuming and demanding in respect of qualification
      - tools also suitable for beginning teachers
      - tools suitable for experienced teachers only – experts.
   d) Justify your choice.

3) Choose two out of the 30 tools and familiarise yourself with them in more detail. Then, using your own words:
   a) characterise the tool selected from the viewpoint of 1. objectives, 2. target group, 3. time requirements, and 4. material needs.
   b) Do an overall evaluation of your tool in respect of the advantages and disadvantages resulting from its use for: students, teachers, school managers, and other school partners.
Summary

The issue of school self-evaluation (self-assessment) is a current phenomenon in modern pedagogy and modern school systems. The synonymous use of the two terms illustrates the fairly frequent practice in Czech schools. In legislation, the amendment to Act No. 472/2011 Sb. (Coll.), amending Act No. 561/2004 Sb. (Coll.), the Education Act, as amended, is crucial for the current issue of school self-evaluation.

In the broader and more general context of evaluation, self-evaluation is an internal type of evaluation, mostly carried out at between individual levels of education. Self-evaluation is beneficial for the multiple levels and functions of a school. An ideal course of self-evaluation has six stages which can be further categorised into other particular steps. Self-evaluation contributing to school development must meet the 4E rules. Instrumental, methodological and ideological support of schools is a very important factor in school self-evaluation meeting the 4E rules above.

When working on self-evaluation (which still represents a part of the changes introduced in education in the Czech environment), it is appropriate to use the findings related to the introduction of educational changes (for more details, see chapter 10).

Literature

References used:

12 Options for Funding Educational Activities: Subsidy Programmes, Grants

Objectives

Obor: Učitelství – společný základ dvouoborových studií
After studying this chapter:

- You will have an insight into possible funding opportunities for selected educational activities (subsidy programmes).
- You will become familiar with the basic rules for creating a project which can be applied in the preparation of your own project plan.
- You will be able to create a simple application for financial assistance for your own project plan.

**Terms to Remember (Key Words)**

<table>
<thead>
<tr>
<th>EU subsidy programmes</th>
<th>Comenius</th>
<th>EEA</th>
</tr>
</thead>
<tbody>
<tr>
<td>ESF subsidy programmes</td>
<td>Leonardo da Vinci</td>
<td>Norwegian Fund</td>
</tr>
<tr>
<td>subsidy programmes (Education for Competitiveness)</td>
<td>Erasmus</td>
<td>principles of writing a project application</td>
</tr>
<tr>
<td>Dům zahraničních služeb (House of International Services)</td>
<td>Gruntvig</td>
<td>S. M. A. R. T</td>
</tr>
<tr>
<td>subsidy programmes</td>
<td>transversal programme</td>
<td>Benefit7</td>
</tr>
<tr>
<td>NAEP</td>
<td>eTwinning</td>
<td>SWOT</td>
</tr>
</tbody>
</table>

This chapter describes various methods for the financing of educational and other education-related activities. With reference to the basic awareness of all students of tertiary, and possibly also secondary, schools, it is apparent that the Czech education system is not financed only from the state budget through the Ministry of Education, Youth and Sports\(^3^4\). Additional educational-activity financing options include:

- EU structural funds and the European Social Fund (see 12.1),
- Programmes coordinated by the National Agency for European Education Programmes or NAEP (see 12.2).

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\(^3^4\) Detailed information about the financing of educational institutions may be found on the website of the Ministry of Education, Youth and Sports or of the establishers/individual regions, as well as from various annual reports, etc. Similarly, detailed budgets for individual years are available on the ministry’s website in the educational economics section at [http://www.msmt.cz/vzdelavani/skolstvi-v-cr/ekonomika-skolstvi/roz pocet-kapitoly-msmt](http://www.msmt.cz/vzdelavani/skolstvi-v-cr/ekonomika-skolstvi/rozpocet-kapitoly-msmt).
Subchapter 12.3 focuses on lifelong learning programmes. Subchapter 12.4 contains selected recommendations for drafting projects and applying for financial subsidies.

### 12.1 EU Structural Funds and the European Social Fund

As stated above, one of the options for the financing of selected activities is to use financing from the **European Union’s structural funds**. Structural funds focus on supporting the achievement of regional goals. In other words, they support more or less regional projects or projects whose outputs influence specific regions.

From our point of view, the most interesting structural fund is the **European Social Fund** (ESF), whose main goals are to secure people’s more active participation on the labour market, to support professional training of new workers, and to finance education and requalification activities. Financial support is divided through operational programmes that determine the support’s focus. The education segment is the focus of the Education for Competitiveness programme.\(^{35}\) Information about structural funds may be found on the Ministry for Regional Development’s website at [http://www.strukturalni-fondy.cz/cs/Uvodni-strana](http://www.strukturalni-fondy.cz/cs/Uvodni-strana). Financial subsidies from these programmes are always provided for consecutive periods: 2004–2006, 2007–2013. The 2014–2020 period for the Czech Republic is currently in the preparatory phase, but approximately CZK 20 billion will probably be allocated for the country. "**CZK 11.73 billion was divided in support of regional competitiveness and employment in the Czech Republic in 2007–2013**"\(^{36}\) (Ministry for Regional Development of the Czech Republic, 2013).

So-called calls are announced for each given period, targeting financial support to selected areas and regions within the operational programme, and specifying eligible applicants and the method for achieving the subsidy. Calls are announced electronically and for specific periods lasting a few weeks. All written and electronic applications have to be sent to the relevant authorities by the set deadline for processing and evaluation. Formal matters are evaluated first, then the project’s content qualities. In case of insufficient formal processing – the failure to meet some of the requirements (logo size and colour, failure to provide the required information etc.), the application is rejected and not forwarded for further evaluation. If the project application does not score the required number of points, it is not supported. Contracts are

\(^{35}\) Note the second logo from the right at the bottom of the page. This study text was written with a contribution from this operational programme.

\(^{36}\) Converted at the exchange rate of EUR 1 = CZK 28, EUR 419.09 million
signed with successful applicants and subsidies are drawn according to set rules (see http://www.strukturalni-fondy.cz/cs/Informace-o-cerpani.aspx).

As for the drawing of subsidies, the costs of the given projects are usually reimbursed retrospectively, i.e. after the implementation of one of the project’s phases (based on the monitoring report). Organisations thus often initially have to take loans for their projects. This is a complication, but the projects still pay off to the organisations. Problems occur when organisations make mistakes in their projects, fail to achieve the set project outputs or otherwise fail in their projects, or do not comply with the financing terms and lose the subsidy. This means that the invested costs will either not be reimbursed to the organisation or the given organisation will have to return money from the reimbursed project phase. If this happens to an organisation that has taken a loan, it can result in the organisation finding itself in an existentially critical situation.

The text above briefly described general information about structural funds. The information concerns primarily public institutions and organisations (municipal authorities, non-profit organisations, schools, etc.). In such cases, the value of financial resources is higher, project management more demanding, and preparations significantly more detailed and lengthier. Creating such a project requires the flawless cooperation of many participants – a manager/leader, coordinator, methodologist, economist, implementer, etc.

What is very important? Being able to write an application in a manner that ensures that it is supported. Good knowledge and high-quality preparation of the selected project is a basic factor. The minimum for rules that we should adhere to are the so-called Ten Guidelines for a Successful Project (ESF, 2013):

1. Find out who can apply for a subsidy.
2. Have a clear idea what you want to implement.
3. Set the targets that you want to achieve.
4. Study the Performance Document.
5. Do not come up with ideas that cannot be implemented – keep within the limits of feasibility.
6. Always act in compliance with the laws of the Czech Republic and the European Union.
7. Do not be afraid to obtain information – ask and consult.
8. Comply with the call’s terms.
9. Do not underestimate the importance of the compulsory attachments and their format.
10. Be sure to meet deadlines. (ESF, 2013)

12.2 Overview of NAEP-Coordinated Programmes
Other options for the financing of educational activities include joining one of the existing subsidy programmes coordinated by the National Agency for European Education Programmes (NAEP). Various programmes using international cooperation are available. Obtaining more information about the subsidy programme is up to the potential applicant interested in the subsidy. In this case, international cooperation and exchanges of experience are secured by the House of International Services\(^{37}\) at the Ministry of Education, Youth and Sports – through the aforementioned NAEP.

**The National Agency for European Education Programmes (NAEP), presented already in Chapter 2, was formed thanks to the new generation of the Lifelong Learning Programme in the Czech Republic (LLP)\(^{38}\) for 2007–2013, transforming the activities of the Socrates and Leonardo da Vinci Program National Agencies. NAEP is responsible for the implementation of the **Lifelong Learning Programme in the Czech Republic**, as well as other educational programmes, and is the agent for the provision of EU financial resources in the entrusted segments, primarily those with international overlap. NAEP’s goal is to create an in information system on EU educational programs and other international activities. NAEP provides information and consultation services related to the entrusted programmes, organises national and international seminars and conferences, promotes the Czech education system abroad, and publishes informative materials.

NAEP coordinates the following programmes:

- **Lifelong Learning Programme**
  (Comenius, Erasmus, Leonardo and Grundtvig)
  - **Erasmus Mundus**: EU programme supporting cooperation and mobility in the tertiary education segment. The programme enables talented university students to study in Erasmus Mundus quality master’s and doctoral programmes and participate in study stays at universities in non-European countries within the partnership. The study programmes are approved by the European Commission. Links to the offer of study programmes available within Erasmus Mundus (Eacea, 2013, at http://eacea.ec.europa.eu/index_en.php)

\(^{37}\) **Dům zahraničních služeb** (House of International Services) is a contributory organisation established by the Ministry of Education, Youth and Sports of the Czech Republic, fulfilling tasks within the securing of schooling, education and other contact with international entities, based on the ministry’s instructions. More information is available at [www.dzs.cz](http://www.dzs.cz).

\(^{38}\) The programme (LLP) was implemented in 2006, based on the decision adopted by the European Parliament.
• **Tempus and Erasmus for All**: EU programme supporting modernization of the tertiary education system in partner countries. Participants include schools from Eastern European countries, Central Asia, and the West Balkan and Mediterranean regions. The programme’s goal is to support the implementation of reforms and modernisation of the education system. The Tempus programme ran in four phases. The final, fourth phase occurred in 2013. No call is opened or planned now and most of the programme should become a part of the new European educational programme Erasmus for All.

• **Norwegian funds and EEA**: Programme for the cooperation of schools and scholarships, administered by the House of International Services (DZS/NAEP). The programme aims to form suitable conditions for establishing well-functioning international partnerships among institutions and individuals active in the education segment. The programme offers applicants options for international project cooperation and study residencies.

• **Swiss SCIEX-NMS**: part of the Swiss-Czech Cooperation Programme, aims to reduce the economic and social differences in the expanded European Union. The programme term runs from 2009 until 2016. The programme’s goal is to reduce the social and economic imbalances in the expanded European Union by boosting scientific capacities and cooperation in science in eight ‘new’ EU member countries (Czech Republic, Estonia, Lithuania, Latvia, Hungary, Poland, Slovakia and Slovenia), plus newly also Bulgaria and Romania, and Switzerland. The scholarship fund is designed for PhD students and post-graduate students (Junior Researchers) in Czech institutions that are eligible applicants for the programme.

• **eTwinning**: programme focusing on distance cooperation and communication among schools, primarily using information technologies.

• **Euroguidance**: programme for the formation of consulting centre networks for success on the labour market etc.


We will now focus on the Lifelong Learning Programme.

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39 The European Economic Area (EEA) Fund was formed by three countries that are not EU members – Iceland, the Principality of Liechtenstein and the Kingdom of Norway – in 2004. The programme’s second phase commenced in 2012. The programme’s goal is to reduce social and economic imbalances in the European Economic Area.

40 The abbreviation stands for the Scientific Exchange Programme between the New Member States of the EU and Switzerland.
12.3 Lifelong Learning Programme

The Lifelong Learning Programme consists of four sector programmes:
1. Comenius – focuses on pre-school and school education up to the level of completed secondary education,
2. Erasmus – focuses on university education and professional education on the tertiary level,
3. Leonardo da Vinci – supports professional education and training,

The programmes share the so-called transversal programme consisting of:
1) cooperation and innovation of policies,
2) support for language studies,
3) information and communication technologies,
4) dissemination and exploitation of lifelong learning results.

Additionally, the Lifelong Learning Programme contains the Jean Monnet programme, consisting of campaigns and operating grants for European institutions. The programme’s budget totals EUR 6.97 billion for 7 years. Participating in the programme in 2012 were EU member countries, EFTA and EEA countries such as Norway, Iceland, Liechtenstein and Switzerland, and Croatia and Turkey as newly accessing and/or candidate countries. (NAEP, 2013)

12.3.1 Comenius Programme

The target group of the Comenius programme, focusing on school education at ISCED levels 0–3, is pupils, students, teachers and pedagogical workers in these types and grades of schools. The programme’s main goal is to develop understanding among young people from various European countries and teach them the basic life skills required for personal development, future employment and active participation in European matters. (NAEP, Comenius, 2013)

Supported activity types include:

a) Individual mobility,
b) Support for cooperation,
c) Centralised multilateral projects (e.g. the development, promotion and dissemination of good examples in education,

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27 European Union Member States: Belgium, Bulgaria, Czech Republic, Denmark, Estonia, Finland, France, Ireland, Italy, Cyprus, Lithuania, Latvia, Luxembourg, Hungary, Malta, Germany, Netherlands, Poland, Portugal, Austria, Romania, Greece, Slovakia, Slovenia, Spain, Sweden and the UK.

incl. the creation of new educational methods and materials, exchange of experience and creation of systems that secure information and/or consulting for students, teachers etc.),

d) Centralised thematic networks (e.g. the acquisition and dissemination of showcases of good examples and innovative approaches, provision of support for projects in the given thematic field, and analysis of requirements and their practical application in school education).

Most interesting for potential future teachers seem to be the individual mobility programmes that may concern:

- Mobility of pupils/students and teachers (e.g. teacher exchanges, study trips for directors, student exchanges)
- Participation in educational courses/training seminars for teachers and other pedagogical workers involved in school education
- Study and preparatory visits for mobility, school partnerships, centralised projects and/or thematic networks
- Assistance residencies for students/future teachers

More detailed information is available on the Comenius Programme website.

12.3.2 Erasmus Programme

The Erasmus programme is one of the most important educational and professional training programmes in the EU. The programme focuses on mobility and cooperation in the European tertiary education segment. Erasmus supports the cooperation of university education through intensive programmes and international projects. The programme helps students and employees with their personal and professional development. The Erasmus programme celebrated its 25th anniversary in 2012.

Main goals of the Erasmus programme:

- Improve the quality and increase the amount of student and employee mobility in Europe, thus contributing towards the goal of at least three million persons participating in student mobility within the Erasmus programme and the preceding programmes43;
- Improve the quality and increase the amount of multilateral cooperation among university institutions in Europe;
- Raise the transparency and compatibility of university education qualifications in Europe;
- Boost the quality of and increase the amount of multilateral cooperation in university educations and between companies in Europe.

43 The goal was met and more than 3 million persons have already participated in the Erasmus programme.
The Erasmus programme is open to institutions (universities, selected colleges/institutes, conservatories, arranging organisations (consortia) and/or individual students and employees. The individuals are selected by the schools themselves. (NAEP, Erasmus, 2013)

12.3.3 Leonardo da Vinci Programme

The Leonardo da Vinci programme targets the learning and educational requirements of persons participating in professional education and training at levels other than university and organisations offering and/or supporting this type of education and training.

The programme is primarily designed for:

- Institutions and organisations providing education options in relevant sectors;
- Consortia and representatives of professional education and training participants, incl. consortia of students and apprentices, parents and teachers;
- Companies, social partners and other professional-life representatives;
- Entities dealing with advising, consulting and information services in the lifelong learning segment;
- Entities responsible for the system and policies of professional education and training;
- Research centres and entities involved with lifelong learning issues;
- University institutions;
- Non-profit organisations, volunteering organisations and non-governmental organisations.

The Leonardo da Vinci programme offers two types of activities:
1. Centralised activities, managed from the centre in Brussels,
2. Decentralised activities, incl. preparatory visits and mobility and partnership projects as well as multilateral projects.

In terms of mobility projects, the programme focuses on international internships in companies and institutions for persons in the initial education system, persons on the labour market, and internships and exchange stays focusing on further professional development of staff involved with professional education and training. (NAEP, Leonardo da Vinci, 2013).

12.3.4 Grundtvig Programme
The Grundtvig LLP programme focuses on the educational and schooling requirements of people in all forms of adult education and on institutions and organisations offering and/or supporting such education.\textsuperscript{44}

The activities offered by the Grundtvig programme are divided into:

a) centralised activities, managed from Brussels (multilateral projects focusing on the improvement of adult-education systems, thematic professional networks, and other activities);

b) decentralised activities, managed according to the competences of the national agency of the given country participating in the project. Examples of such activities include:

- **mobility of persons** (education courses, internships, conferences and assistance residencies) focusing on the education and professional development of persons involved in adult education, especially in cooperation with multilateral projects and partnership projects;

- **partnership projects focusing on interests shared by the participating organisations**;

- educational **workshops** for adult participants from abroad;

- **volunteering projects** focusing on support for bilateral cooperation of volunteering organisations through the mutual exchange of volunteers aged 50+;

- **preparatory** visits enable institutional workers to attend contact seminars and/or working meetings with potential project partners (NAEP Grundtvig, 2013).

### 12.3.5 Jean Monnet Programme

The Jean Monnet programme is part of LLP and focuses on **support for education, research and discussion in the segment of studies of European integration at the university institution level**. European integration studies are defined as the analysis of the origin and development of the European Community and European Union in all aspects. The programme was opened in 1990 and its goal is to improve the know-how and awareness about issues related to European integration of academic workers, students and citizens around the world. More information about the project is available at [http://www.naep.cz/index.php?a=view-project-folder&project_folder_id=83&](http://www.naep.cz/index.php?a=view-project-folder&project_folder_id=83&).

\textsuperscript{44} Literature for inspiration with good practice examples from the Grundtvig programme may be found at [http://www.naep.cz/index.php?a=view-project-folder&project_folder_id=569&](http://www.naep.cz/index.php?a=view-project-folder&project_folder_id=569&).
12.4 How to Draft a Project – Applying for a Financial Subsidy

The preparation of a larger project is demanding and even thorough preparation and quality processing of one’s application does not guarantee that the project will be supported. Or the project’s and activities’ focus does not correspond to the opened calls and we have thus nowhere to ask for support. Another option for obtaining financial support is to address private donors and/or use one of the many funds from various companies. Individual selected organisations and/or companies aim to sponsor socially beneficial projects and selected diverse activities. In some cases they may support e.g. public-awareness or educational campaigns or a campaign with social focus. Every company sets the rules and content of its projects itself, at its discretion, and according to its set strategic goals. The information about such subsidies must be sought directly from the given organisation, on its website or by calling relevant contacts. The processing of project applications is usually easier and the selection method simpler. Problems may occur with the supported segment if our intent differs and the application is thus not eligible. The amount of financial resources may be variable, but will always be lower than e.g. ESF projects etc. Funds for the support of successful projects are offered e.g. by mobile service providers, selected energy companies and carmakers, as well as by smaller entrepreneurs who may use the opportunity for positive regional advertising. Active searching for sponsors and donors on a professional level is called fundraising.45

12.4.1 Several Guidelines for Writing a Project Application

A good idea does not guarantee successful realisation of the intent or the obtaining of financial support from one of the subsidy programmes. The basic thing is to consider the content and activities properly and to describe the intent in an understandable manner, mostly in electronic form. It is important to study the guidelines to the given call carefully, how to process the application, which items are mandatory, what the assessment criteria are, what is assessed, and what the formal requirements for the application are. Most of the calls have clearly set rules and a prescribed form for the submission of applications. Failure to comply with the rules and requirements will result in the rejection of the application for formal insufficiencies and such applications will not even be forwarded for further assessment. For instance, the Benefit7 information system, available at https://www.eu-zadost.cz/uvod.aspx, is used

45 Basic information for beginners about the functioning and principles of fundraising is available at http://www.icmck.cz/DOC/fundraising_pro_zacatecniky.pdf.
for the processing of the application e.g. for ESF. Other programmes have their own forms, mostly completed and sent electronically, together with a printed version sent by mail.

Every application is a bit specific, but the basic structure is usually identical, differently articulated and with different level of detail, depending on the type of programme. Sometimes it is sufficient to describe the intentions, outputs and costs on a few pages. In other cases, the applications must be processed with elaborate details.

The general principles for writing a project are conciseness, transparency, coherency and comprehensibility. Anyone should be able to understand the submitted application well, understand the intent and goals, and implement the project. The applications are read and evaluated by experts on project issues, not the professional issues of the project. The evaluator does not know you or the organisation on whose behalf the application is being submitted. The best thing to do is to have the application read by a third person, to find out whether the text is intelligible. The following syllabus is based on the generally valid rules and the adopted text by Pavel Zdráhal, the author of the article ‘Brief Guidelines for Writing a Good Project and Applying for Money for Absolute Beginners’, available at http://remix.nicm.cz/strucny-navod-jak-napsat-dobry-projekt-a-pozadat-o-penize-pro-uplne-zacatecniky/.

12.4.2 General Outline for Writing Project Application

When writing a project application, we should answer six basic questions (Zdráhal, 2013):

- Why?
- What?
- How?
- Who?
- Why?
- For how much?

The provision of sufficiently reasoned answers to the aforementioned questions is the first step and a prerequisite for a successful application for a financial subsidy from the abovementioned programmes.

**WHY?**

This question concerns goals. The main (global) goal must be set first. This has to be in line with the subsidy programme’s goal. Partial (specific) goals must comply with the S. M. A. R. T.\(^\text{46}\) A specific method for project management and coaching. A method for the evaluation of the quality of project goals or personal development goals. More info at http://cs.wikipedia.org/wiki/SMART_metoda.

\[^{46}\text{A specific method for project management and coaching. A method for the evaluation of the quality of project goals or personal development goals. More info at http://cs.wikipedia.org/wiki/SMART_metoda.}\]
rule, i.e. the goals must be:
S – specific, concrete
M – measureable
A – ambitious, achievable
R – relevant, adequate
T – timely, time-boxed
Do not forget to define the target group – describe who will participate in the project, who is the primary target group, and who are the other participating groups of persons. Again, everything must be in compliance with the call.

WHAT?
This question refers to the specific content of the project. The results of individual activities must be specified, and outputs that are objectively measurable and verifiable during or at the end of the project must be described. The results and outputs must lead to goal achievement. It is good to realise and describe the potential overlap of the project and the project’s long-term sustainability, as these criteria are a common rating criterion.

HOW?
This question asks about the method we want to use to achieve the set goals, how the key activities will be carried out. All specific activities that you will carry out must be named, structured and described in detail. Set the outputs (measurable and verifiable), calculate the costs of the activities and staffing for the implementation of the activities. It is also good to set a timeframe for the implementation of the activities.

WHO?
The applying organisation is mostly specified at the beginning of the application. Present the organisation, name the persons in the implementation team, and describe their experience and qualifications. It is suitable to showcase any experience with the implementation of previous projects or other successes.

WHEN?
Only suitably planned project implementation activities warrant successful fruition of the project’s intent and, prior to that, successful approval of the application. The time scheduled should contain a description of the preparation, planning, implementation and evaluation of the project. Good time planning can help detect potential risks. Any risks can be revealed already in the preparatory
phase during the SWOT analysis. Measures for risk elimination can subsequently be stipulated.

FOR HOW MUCH?
The project’s budget must be clear, transparent and numerically correct, and individual items must be eligible, i.e. in line with project-financing rules. Importantly, the items must comply with the performed activities. A trained person from the given organisation’s financial department usually helps process the budget.

FREQUENT MISTAKES
- failure to comply with formal requirements
- provision of misleading information
- goals and partial goals are just a general statement without any specification
- project does not seem to be implementable
- no cooperation with other entities, project’s independence (if cooperation is required)
- insufficiently detailed budget
- project description is too loose, unintelligible, incoherent

Appendix 5 depicts the structure of a more complicated application within the ESF subsidy programme, submitted electronically using the Benefit7 information environment where the outline is generated automatically and applicants just add text to prepared cells in tables. In these cases, there are certain limitations – primarily the number of characters/words allowed for the project description. A detailed description is then included in appendices. The application is a rather extensive and detailed document with many compulsory attachments.

Review Questions
1. What is the role of European structural funds?
2. Name and characterise the programmes coordinated by the NAEP.
3. Which educational programme is suitable for secondary-school students? And which one for university students?
4. Explain the following terms: a) fundraising; b) S. M. A. R. T method; c) ten pieces of advice for creating a successful project.
5. In what way can brainstorming be used in project preparation?
6. What is a SWOT analysis? Explain it and give examples of its application.
7. Name the basic parts of a project application for a subsidy.

**Knowledge-Broadening and Practical Tasks**

1. Try to find out how many Czech students have participated in study mobility in recent years. What would entice you to take part in such a programme? For you, what are the obstacles to submitting an application for a study stay (study mobility)?

2. Use the partner search database within the Norwegian funds and EEA funds at http://siu.no/eng/Front-Page/EEA-partner-search to find a suitable partner school for mutual cooperation (the level of education can be a suitable search criterion – primary school, secondary school, university, technical school, your teaching qualification, focus, fictitious project plan, etc.).

3. Find a current call for your field of study, teaching qualification, or subject for which you could write a project application.

4. Search your environment (and the Internet) to find out which regional organisations and firms offer funds to support educational projects.

5. Design your own project and try to write an application for financial assistance for your project plan. Use the general outline above.

6. Find a pending call in one of the subsidy programmes and try to prepare a project application.

**Summary**

Based on a variety of agreements for international cooperation, the policies of the EU and non-EU countries are aimed at exchanging experience and scientific capacities, reducing social and economic differences, supporting participation in the labour market, seeking to create a flexible employee/worker, supporting lifelong learning activities, etc. International targets are met through educational programmes created for this purpose thanks to the funds invested into these subsidy programmes. European structural funds, in particular the ESF in education, enjoy a crucial position in this respect. Certain subsidy programmes are implemented via the Czech Ministry for Education, Youth and Sports. International cooperation and exchange of experience is arranged by the House of International Services (Dům zahraničních služeb) of the Ministry of Education via the National Agency for European Educational Programmes (NAEP). This agency is involved in the implementation of the Lifelong Learning Programme. The most important educational programmes include Comenius,
Erasmus, Erasmus Mundus, Leonardo da Vinci, Grundtvig, etc. The non-EU countries have established the EEA funds and Norwegian funds. There are programmes and funds targeting students at various levels of education, teachers and employees, doctoral students, and scientific capacities in research and development. They must know and meet the specified conditions for submitting an application for their project plan's support (e.g. study mobility). To write an application, the following questions must be answered briefly: Why? What? How? Who? When? For how much?

**Literature**

References used:


13 Conclusion

The aim of the study text you have just read is to expand and deepen your knowledge and understanding of pedagogical issues in an international context. It is intended to be used in close connection with the subject of the same name and is a combination of comparative pedagogy, school pedagogy and school management (when related to the issue of a controlled educational change and the related issues associated with resistance or conditions facilitating the course of change).

Its concept takes into account societal developments in order to reflect international dimensions in education in general and education of the teachers, as well as the need for the targeted development of the teachers’ awareness of their profession in an international context. This professional awareness is an important starting point for increasing and improving the professional self-respect of (prospective) Czech teachers. Efforts to help teacher preparation in active participation in professional discussions initiated at the regional, national
and international level were also an important factor behind the creation of this text (e.g. see the calls of the Ministry of Education, Youth and Sports for discussions about teaching standards, previous curricular reforms, etc.). Understanding of these areas can also help in any considerations about the objectives, focus, vision and presentation of schools in a more international context, in particular with regard to competition for students and efforts to have comparable educational outcomes. Understanding the issue of subsidy programmes and applications can help starting teachers adapt to the school environment in a more seamless way.

This study text and the related subject also seek to provide (potential) starting teachers with fundamental information and an insight into the issue of education funding in international comparisons and with information on other funding opportunities for exchange stays of students and teachers (see chapters 3, 4 and 12). The summary of institutions and sources related to comparative pedagogy (chapters 3 and 4) can also be used in the collection of statistical figures about various aspects of the Czech school system in international comparisons; the figures and findings from these sources can be used in justifications of applications within various subsidy or development lifelong learning programmes. And when writing qualification papers in education, of course. With this knowledge, student-teachers are at least partially prepared for the fact that education and schools cannot be of high quality if isolated as they are closely tied to the economic and political environment, etc.

Considering the international dimension of education, the development of society characterised by permanency, dynamics and complexity, and the frequency of global changes where the status quo seems to be a matter of the past (Barták, 2007, p. 11), it would be a mistake to omit a subject increasing teachers’ awareness and understanding of at least some selected aspects of school system funding, comparisons of education expenditure, the position of students and teachers in international comparisons, and information sources in comparative pedagogy in teachers’ education.

Findings about educational changes are also included with regard to the fact that their actors (agents, recipients) primarily include teachers (in addition to other non-teaching staff, students or their parents). The same reasons apply to school self-evaluation as we can say with Poláčová Vašťatková (2012) that if done properly, school self-evaluation is a starting point, condition and beginning of efforts at changes toward learning schools and higher quality. Self-evaluation can be viewed as the beginning of a dialogue. Referring to the statement that self-evaluation is a controlled and sustainable change, the lively discussions accompanying the beginnings of the statutory requirements for
school self-evaluation in the Czech environment take on a new dimension. The awareness of the needed and natural resistance and of the heterogeneous and gradual process of adoption and dissemination of a change can be of benefit not only at the level of school management, but can also contribute to better awareness of the individual view of the changes, the individual rate of flexibility, etc., which are factors that play a crucial role with teachers, also with regard to the need to operatively address unexpected changes in their day-to-day interaction with students.

Knowledge of the theoretical principles of resistance to change in relation to all of the topics discussed in this study text can be a step toward active work on the development of teachers’ professional competencies as specified in the introduction to this text.

14 Literature


MŠMT. Rejstřík škol a školských zařízení MŠMT. [online], [cit. 20.11.2012]. Available at http://rejskol.msmt.cz/.


Appendices

Appendix 1: Main Subject Objectives in Terms of Developed Teacher Skills and Competencies

Appendix 2: Overview of Indicators A1–D7

Appendix 3: Comparison of Starting and Top Scale Teachers’ Salaries

Appendix 4: Comparison of the Organisation of Teachers’ Working Time

Appendix 5: Structure of Teachers in Secondary Education by Age Group

Appendix 6: Diagram of the Czech Republic’s School System

Appendix 7: Average Annual Expenditure per Student by Level of Education (2008)

Appendix 8: Example of the Structure of the Benefit7 Application

Appendix 1: Main Subject Objectives in Terms of Developed Teacher Skills and Competencies
### Particular objectives: **Developed skills:**

#### Students:

1. become familiar with the basic findings about comparative pedagogy as a basic educational discipline;
2. gain insight into the basic current sources of comparative pedagogy;
3. compare the selected aspects of the Czech educational system with school practice abroad;
4. deepen their understanding of the current Czech educational environment in relation to the international context;
5. know the advantages and disadvantages of selected evaluation tools within school self-evaluation;
6. actively work with sources on comparative pedagogy;
7. cooperate with other future teachers in the given area;
8. effectively work within the field of comparative pedagogy and use the relevant sources;
9. apply the knowledge and skills acquired in the formulation of educational projects, subsidy applications, etc., when seeking suitable schools for international cooperation or to support student mobility, etc.;
10. draw conclusions and potential recommendations for school practice;
11. look for any links between Czech and European educational policies;
12. are critical about and discuss the current problems in education within the international context.

### Particular objectives: **Developed professional competencies**

- A. In relation to their subject area
- C. In relation to pedagogy and organisation
- G. Cultivating in relation to profession and personality

#### E. Social and communicative 

- (with peers)
- G. Cultivating in relation to profession and personality

#### A. In relation to their subject area

- F. Managerial and normative
- G. Cultivating in relation to profession and personality

A The output of educational institutions and the impact of learning (Indicators A1–A11);
   A1 To what level have adults studied?
   A2 How many students are expected to finish secondary education?
   A3 How many students are expected to finish tertiary education?
   A4 What is the difference between the career aspirations of boys and girls and the fields of study they pursue as young adults?
   A5 How well do immigrant students perform in school?
   A6 To what extent does parents’ education influence access to tertiary education?
   A7 How does educational attainment influence participation in the labour market?
   A8 What are the earnings premiums from education?
   A9 What are the incentives to invest in education?
   A10 How does education influence economic growth, labour costs and earning power?
   A11 What are the social outcomes of education?

B Financial and human resources invested in education (Indicators B1–B7);
   B1 How much is spent per student?
   B2 What proportion of national wealth is spent on education?
   B3 How much public and private investment in education is there?
   B4 What is the total public spending on education?
   B5 How much do tertiary students pay and what public support do they receive?
   B6 On what resources and services is education funding spent?
   B7 Which factors influence the level of expenditure?

C Access to education, participation and progression (Indicators C1–C6):
   C1 Who participates in education?
   C2 How do early childhood education systems differ around the world?
   C3 How many students are expected to enter tertiary education?
   C4 Who studies abroad and where?
   C5 Transition from school to work: Where are the 15–29-year-olds?
   C6 How many adults participate in education and learning?

D The learning environment and organisation of schools (Indicators D1–D7)
D1 How much time do students spend in the classroom?
D2 What is the student-teacher ratio and how big are classes?
D3 How much are teachers paid?
D4 How much time do teachers spend teaching?
D5 Who are the teachers?
D6 Who makes key decisions in the education system?
D7 What are the pathways and gateways to gain access to secondary and tertiary education?

Appendix 3: Comparison of Starting and Top Scale Teachers’ Salaries (USD)

<table>
<thead>
<tr>
<th></th>
<th>Starting salary</th>
<th>Top scale salary (maximum)</th>
<th>Percentage (approximate)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Czech Rep.</td>
<td>ISCED 2</td>
<td>14916</td>
<td>22522</td>
</tr>
<tr>
<td>Country</td>
<td>ISCED 2</td>
<td>ISCED 3</td>
<td>OECD</td>
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<tr>
<td>OECD</td>
<td>15533</td>
<td>24117</td>
<td>64%</td>
</tr>
<tr>
<td>ISCED 3</td>
<td>29801</td>
<td>47721</td>
<td>62%</td>
</tr>
<tr>
<td>EU</td>
<td>30899</td>
<td>49721</td>
<td>62%</td>
</tr>
<tr>
<td>England</td>
<td>30204</td>
<td>44145</td>
<td>68%</td>
</tr>
<tr>
<td>Slovakia</td>
<td>31351</td>
<td>42879</td>
<td>73%</td>
</tr>
<tr>
<td>Germany</td>
<td>32276</td>
<td>45377</td>
<td>71%</td>
</tr>
<tr>
<td>Finland</td>
<td>31351</td>
<td>42879</td>
<td>73%</td>
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</tbody>
</table>

Appendix 4: Comparison of the Organisation of Teachers’ Working Time (2010)

<table>
<thead>
<tr>
<th>Instruction (weeks)</th>
<th>CR</th>
<th>Greece</th>
<th>Mexico</th>
<th>France</th>
<th>Slovakia</th>
<th>OECD</th>
<th>EU</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>ISCED 1</td>
<td>41</td>
<td>36</td>
<td>42</td>
<td>35</td>
<td>38</td>
<td>38</td>
</tr>
</tbody>
</table>

Obor: Učitelství – společný základ dvouoborých studií
### Appendix 5: Structure of Teachers in Secondary Education by Age Group (2010, %)

<table>
<thead>
<tr>
<th></th>
<th>Lower secondary (ISCED 2)</th>
<th>Upper secondary (ISCED 3)</th>
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<tbody>
<tr>
<td><strong>Cz. Rep.</strong></td>
<td>7.3</td>
<td>24.4</td>
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<tr>
<td><strong>Finland</strong></td>
<td>11.2</td>
<td>30.2</td>
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**Note:** ISCED 3 (general education programmes)

(source: OECD, T D 4.1)
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</thead>
<tbody>
<tr>
<td>Sweden</td>
<td>6.8</td>
<td>30.4</td>
<td>26.1</td>
<td>22.7</td>
<td>14.0</td>
<td>6.8</td>
<td>22.9</td>
<td>25.1</td>
<td>27.1</td>
<td>18.1</td>
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<tr>
<td>Slovakia</td>
<td>14.6</td>
<td>26.8</td>
<td>21.8</td>
<td>30.7</td>
<td>6.1</td>
<td><strong>12.1</strong></td>
<td>24.1</td>
<td>25.0</td>
<td>31.1</td>
<td>7.7</td>
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<td></td>
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<tr>
<td>Brazil</td>
<td><strong>18.5</strong></td>
<td>34.0</td>
<td>30.9</td>
<td>14.2</td>
<td><strong>2.5</strong></td>
<td><strong>17.5</strong></td>
<td>33.7</td>
<td>30.7</td>
<td>15.2</td>
<td><strong>2.9</strong></td>
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<tr>
<td>Austria</td>
<td>6.5</td>
<td>15.8</td>
<td>33.1</td>
<td>41.9</td>
<td>2.7</td>
<td>5.8</td>
<td>20.0</td>
<td>35.3</td>
<td>34.6</td>
<td>4.2</td>
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<tr>
<td>OECD average</td>
<td><strong>11.6</strong></td>
<td>27.2</td>
<td>28.0</td>
<td>27.1</td>
<td><strong>6.2</strong></td>
<td><strong>9.4</strong></td>
<td>25.1</td>
<td>28.7</td>
<td>28.6</td>
<td><strong>8.2</strong></td>
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<tr>
<td>EU21 average</td>
<td><strong>10.8</strong></td>
<td>27.0</td>
<td>27.8</td>
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<td><strong>5.9</strong></td>
<td><strong>8.7</strong></td>
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<td><strong>7.8</strong></td>
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(source: OECD, T D 5.2)

Appendix 6: Diagram of the Czech Republic’s School System
Appendix 7: Average Annual Expenditure per Student by Level of Education (2008)
Chart B1.2. Annual expenditure per student by educational institutions for all services, by level of education (2008)

Expenditure per student (equivalent USD converted using PPPs, based on full-time equivalents)

(source: OECD, Education at a Glance 2011)
Appendix 8: Example of the Structure of the Benefit7 Application

- cover letter or the required form
- name, brief content and project summary (project annotation);
- presentation and description of the applicant (organisation or person) submitting the project and responsible for the project;
- applicant’s past experience with project implementation (if any);
- problem definition, description of the starting situation (SWOT analysis if applicable);
- detailed project description:

Project objectives (should be SMART):
- S – specific;
- M – measurable;
- A – ambitious, attainable;
- R – relevant;
- T – time-limited.
  - benefits for the target group (students, teachers, etc.) – the target group must be in line with the call about the project benefits for these persons;
  - added value and project innovations (why is it innovative?);
  - ties to other projects;
  - project management and organisation;
  - target group description, its engagement and motivation;
  - supported activities;
    - detailed description of key activities’ implementation;
    - key activities’ outcomes;
    - cost of key activities;

- project budget;
- schedule (time plan) of activities;
- project management, implementation team, job description and cost;
- cooperating organisations, partners;
- project evaluation, method for how to verify the project’s success;
- appendices (add anything which could be have an impact in the decision-making process related to project selection, e.g. organisers’ CVs, information about the organisation, leaflets, journalistic articles, etc.).

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