# CREATIVE APPROACH TO DEVELOPMENT OF TEACHER COMPETENCES

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**Resumé**

Příspěvek uvádí problematikou učitelských kompetencí v základním a odborném školství. Kompetence se stávají nejdůležitějším atributem inovace a modernizace vzdělávacího procesu.

Pomocí orientačního výzkumu byly zjišťovány postoje učitelů škol v regionu k učitelským kompetencím. Byla použita dotazníková metoda doplněná řízeným rozhovorem.Výsledky výzkumu byly použity při stanovení pořadí nejdůležitějších kompetencí. Nejdůležitější kompetence byly následně upřesněny. Z výzkumu vyplynulo, že respondenti považují za nejdůležitější kompetence odborné a dále didaktické.

V závěru příspěvku je proto uvedena možnost tvořivého přístupu k rozvoji učitelských didaktických kompetencí. Je využita metoda didaktických případových studií. Tento tvořivý přístup je používán již u studentů učitelských studijních programů v prezenčním studiu. Úspěšně je aplikován i v celoživotním vzdělávání.

**Klíčová slova:** vzdělávání; učitelské kompetence; didaktické kompetence; pedagogický výzkum; tvořivost.

**Abstract**

The paper deals with teaching competences in basic and specialized education. competences are becoming the most important attribute of innovation and modernization of the educational process.

The purpose of own research was to study the attitudes of teachers in the Pilsen region to teaching competences by means of questionnaires followed by controlled discussion. The results of the research were used to determine the teaching competences hierarchy. The most important competences were later specified in greater detail. The research showed that the respondents regarded specialist and didactic competences as the most important.

In its conclusion the paper deals with the creative approach to the development of teaching competences using the method of didactic case studies. This creative approach is being applied in the full-time study programmes for future teachers as well as in lifelong education.

**Key words:** education, teaching competences, didactic competences, pedagogical research, creativity.

## 1 Introduction

Czech school system is undergoing the process of reformation. One of the characteristic features of it is introduction of framework educational programs. Ministry of Education considers these as curricula documents. This process is accompanied by legal changes in the educational system.

European educational system has been experiencing these changes since the middle of the last century. This development is a consequence of social changes of a global character. Processes of integration and globalization of economics, migration of

inhabitants, mixing of cultural and religious worlds, changes in social value system etc. cause changes in the socio-cultural sphere. These are projected into the area of upbringing and education. At its summit in Lisbon in the year 2000 The Council of Europe stated that the above mentioned changes in economy and its anticipated growth require society based on knowledge. For the education area the following outcomes were defined:

- increase of investment in human resources
- support of life long education
- adjustment of qualification and skills to the needs of knowledge-based society
- improvement of recognized qualification system
- introduction of European dimension of education and language learning support
- support of school partnership via the Internet (e-twinning).

The following negotiations in Stockholm (2001), Barcelona (2002), and Brussels (2003) worked out the programs of educational systems outcomes and improvement in level of education and qualification. As early as 2004 it was evident that some of the goals, namely the economic ones will not be met. At the meeting of ministers of education in Maastricht at the end of 2004 the Copenhagen Declaration was upgraded and updated priorities were defined at national and European level, aiming at vocational education mainly. These program conceptions are reflected in the transformation processes of our schools.

## 2 Curricular policy

Most European states design their school policy in the curricular sense. It is understood as defining the outcomes, providing conditions for their completion and creating evaluation tools for assessment of the level of reached outcomes. All these three components of the curricula are guaranteed by the state. The outcome categories are defined as national standards. In the Czech Republic it is the Standard of Secondary Vocational Education (1). The EU tries to create European qualification framework for vocational education. The EU framework should respect national frameworks, unify basic requirements for vocational education and enable recognition of education certificates at different school levels according to ISCED classification. European recognition of qualification will be the basis for effective labor market. Qualification framework can be also defined using qualification profile for different fields and specializations. These frameworks are being prepared in the Czech Republic and are called National System of Classification (NSK). The integrating element is the key competences. These were defined in Lisbon strategy. These are mainly pupil's competences. Teacher competences are rather marginal.

The second part of curricular policy is to guarantee condition of completion of educational system. It means not only financial support that the state provides for education (such as textbooks, teaching aids, ICT etc.). It also covers monitoring of the labor market, coordination of the educational system and social partners from private and non-profit sector. It includes also the standardization of teacher profession, providing secure social situation of teachers, life long education, professional development etc.

Last part of the curricula is the counseling, monitoring and inquiry function. The diagnostic system is most important; it is to create tools for learner and school evaluation. These tools exist in the form of performance standards that draw on

outcome standards and include ways of their completion and methods of results verification (mainly by criteria evaluation).

**3 Teacher profession standard**

Teacher profession standard should provide entire information on qualification requirements for teacher and related professions. The school reform brings new requirements for the teacher and thus new dimensions of teacher profession. Teaching has been long understood as a mission and the demands imposed on the teacher were considerably high. Personality requirement were defined e.g. By Honzíková (2). Because of the school models in the EU it is necessary for teacher profession to be defined by profession standards. It is an obligatory system of knowledge, skills and application experience in the fields of pedagogy, psychology, methodology and management that are vital for successful teacher performance – upbringing and education. Teacher standard should be the basis for the system of life-long education and professional development. It should be the source for a state guaranteed tool of evaluation for teachers and schools. This has not been introduced in the Czech Republic yet. Teacher profession is only defined by qualification requirements (Law no 563/2004 on teachers).

**4 Research in teacher key competences structure**

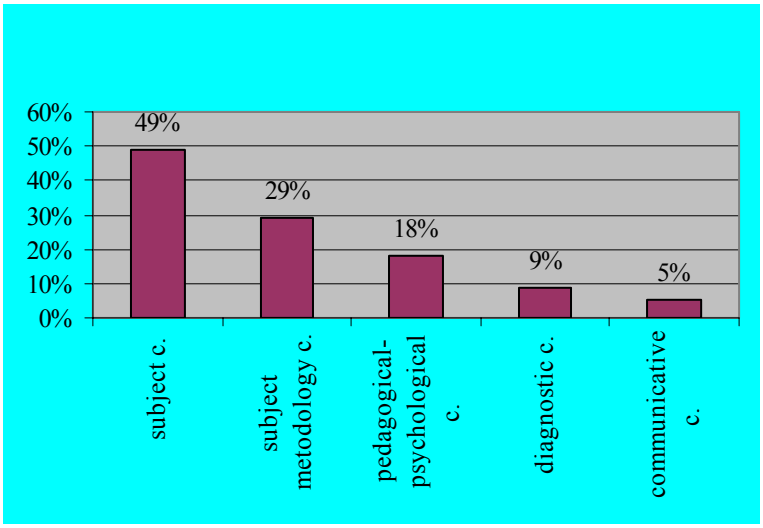
Teacher competence should form a substantial part of profession standards. This issue is being intensively solved by contemporary world pedagogy.

Many of our pedagogy researchers defined teacher competences. Their conceptions do not differ a lot. Technical education teacher competences at primary education were defined by I. Procházková (3) or J. Vašutová (4). Her group defined eight areas of competences: subject competence, didactic competence, general pedagogy, diagnostic and intervention, social communicative, managerial and legislative, and professional reflexive competences. These are further divided into basic skills.

In 2005 in the Pilsen region the department carried out research on teacher competences, which aroused from introducing framework educational programs in secondary vocational schools. The aim of the research was to find out teachers attitudes to teacher competence issues. Another task was to find out what competences are considered the key ones and how these are defined by teachers. The respondents of the research are teachers from vocational secondary and apprentice schools. Almost 30% of the questionnaire returned - it represents 30 respondents. The research was carried out using questionnaires with multiple choice or open items. The questioning technique was accomplished by a guided interview with the respondents who were not able to answer specifically the most important items of the questionnaire. The results were difficult to process and the research cannot be considered representative because of a low number of respondents.

The results of the importance of teacher competences in the general view are shown in the following graph.

Respondents gave altogether eight competences that were necessary for every teacher. This list exactly corresponds with Vašutová conclusions. As most respondents attended at the time of the research complementary course in pedagogy, their answers were probably influenced by the information provided there.




While processing the personal competences that teachers need for their specialization and subjects taught, the results differ as shown in the second graph.

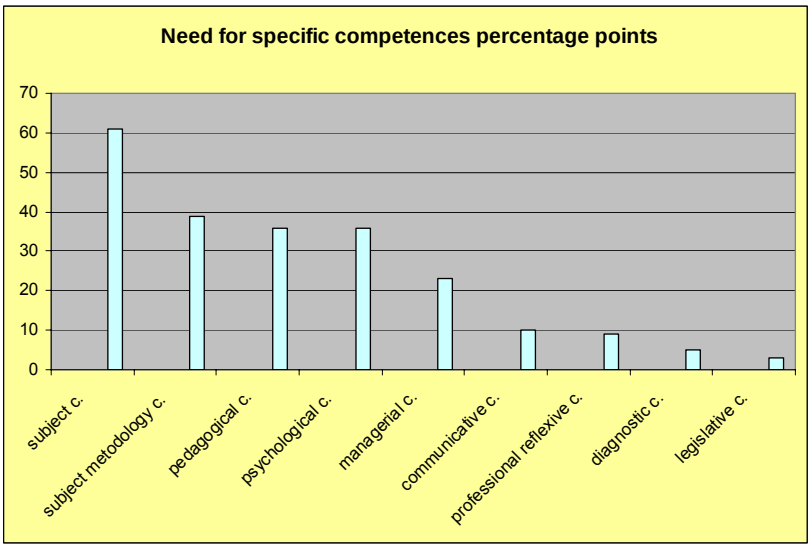
The number of really used competences lowered to five. Pedagogical and psychological competences made only one item. The last three items of the first graph (self-reflective, diagnostic and conceptual competences) had zero representation. The absence of these competences is surprising in the period of introduction of framework educational programs, when schools will have to develop their own conceptual materials – their own educational programs. Teachers will need these competences when they update the programs. Ability of self-reflection, usage of a wide range of diagnostic tools, will be the basis of innovation of school educational programs.

As it is obvious from the graph, almost one half of the respondents consider subject knowledge most important. Far behind are the didactic competences (29%) and pedagogy-psychological ones (18%). The remaining competences are less important, the results being under 10%.

## 5 Research conclusions

The hierarchical order of teacher competences and their articulation is following:

- Subject Competences - teacher is able to have selected subject knowledge, to transform the subject into curricula, to apply didactics into subject methodology, to use integration links between subjects.



- Subject methodology competence – Teacher is capable of projective creativity in the area of outcomes, basic methods, innovative technologies, and respect for individual peculiarities of learners.
- Pedagogical-psychological competences. Teacher is able to solve pedagogical and psychological problems occurring in teaching, to develop learner personality including special needs, to shape the diagnostic climate, to respects children's rights.
- Diagnostic competences. Teacher is able to use all means of pedagogical diagnostics, identify socio-pathological manifestations, identify and support learners with special needs, use auto-diagnostics to increase professional identity.
- Communicative competences. The teacher is able to use all communication and information technologies to develop her professional level, to use effectively all communication means in pedagogical environment (learners, school, social partners, parents and pedagogical public).

System of competences should not be a stereotype. It should have a dynamic character in which some competences can be adjusted and changed according to the needs of learners, teachers, schools and the entire society.

## 6 Creative elements in the development of didactic competences

One of the ways of creative development of didactic competences when studying teacher training of technical subjects at the Faculty of Education at the University of West Bohemia in Pilsen is case study solution.

Case study method developed in the first half of the 20$^{th}$ century in the USA. At Law faculties the „remake" of trial was carries out where future layers practices their skills. This method later spread to the training of managers, businessmen, political scientists etc. At the end of the 90s this method began to be used in teacher training (5). In our pedagogy this method is not fully appreciated. It is often classified only as an activation method. This method is systematically used at the Department of Engineering Pedagogy and Psychology at the Faculty of Materials and Technologies of STU in Bratislava, Slovakia. They use it in complementary course in pedagogy and their approach is similar to the American one. The focus is on the preparation and incubation phases or the case and then on the phase of evaluation and defense. Especially the evaluation phase is very properly processed (6).

The approach to case studies that is applied the Department of technical Education is based on stressing the activation (realization) phase. Their purpose is to fully develop didactic teacher competences.

The aim of a case study is to provide students with basic knowledge on pedagogical procedures related with the micro-teaching techniques. The purpose is to make students familiar with practices that form professional skills in simulated or real school environment. The study develops their pedagogic and communicative predispositions in the situations close to the school conditions – from the methodology point of view in four levels:

1. preparation of chosen didactic situation – so called pre-concept
2. its realization in the form of simulated teaching
3. reflection and self-reflection
4. redoing of an unsuitable part of the situation – post-concept

Solution of case studies is an inseparable part of the subject Didactics of Technical Subjects. Students get a case study of didactic skills. They processed the given topic from subject, didactic, pedagogical and psychological viewpoint. They describe basic ideas and procedures of case study solution, explain and justify their usage. Then they form the conditions of realization of case study environment, learners' level, teaching aids needed. .. ).

In this phase mainly flexibility is developed – ability of adaptive transformation of the given conditions to the virtual form. Then the students create the pre-concept of the study. In simulated environment (in which other students participate) they perform the substantial part of the study. In this phase elaboration and originality is developed. The study is video-recorded, which means it is micro-teaching (video-simulation.). The recording is used in the final defense where all the students participate (not only the tutor). For this phase development of sensibility and redefinition is characteristic. After this reflection the students create an adapted version of the study – post-concept.

Overview of developed partial skills:

- to design didactic situation in the framework of the case study
- to create the pre-concept of the case study
- to anticipate the course of the presentation
- to realize the situation in simulated or real environment
- to compare the pre-concept with the real situation
- to analyze the course of the situation using recording and evaluation of the participants

to adjust the study concept using self-reflection.

#### 7 CONCLUSION

The case study method is positively accepted by the students. But it is, as most creative methods, very time-consuming and requires also creative abilities of the tutor. The paper was created inside the research project No. 406/07/0109 from Czech Science Foundation.

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