Výroční (průběžná) zpráva projektu specifického výzkumu na rok 2015 – zakázka č. 2101

Název projektu: Proinovační angažovanost českého učitele sekundárního vzdělávání v Královéhradeckém kraji: analyticko-komparativní pohled

Specifikace řešitelského týmu:

Odpovědná řešitelka: **Mgr. Daniela Vrabcová, Ph.D.,**
Studentka magisterského studia na PdF UHK: **Bc. Alena Pazlarová** (studentka 1. ročníku magisterského studia, obor: NZS2NJ, NZS2ON, studentské ID: P14P0384)

Celková částka přidělené dotace: 82.780 Kč

Stručný popis postupu při řešení projektu

Březen – duben 2015	- aktualizace a finální příprava výzkumných nástrojů - metodologická přípravná jednání
Duben – červen 2015	- navázání kontaktu se školami - distribuce dotazníku na příslušné školy - sběr dat - zapojení studentky do distribuce dotazníků a do komunikace se školami - řešení potíží při kontaktu studentky se školami a zapojení hlavní řešitelky do sběru dotazníků na školách
Červenec 2015	- zpracování dat – analýzy dat, popis zjištění, první analýzy, zpracování dat s využití SPSS - zapojení studentky do mapování aktuálních specifik učitelů Královéhradeckého kraje, práce se statistikami
Červenec - srpen 2015	- dokončení zpracování a další anlýzy dat s využitím SPSS pro účely příspěvků na konferenci ICEEPSY 6th International Conference on Education & Educational Psychology (Turecko, Istanbul) 2015 - aktivní spoluautorství hlavní řešitelky, metodologická podpora a vedení studentky při tvorbě příspěvku: *Czech teachers´ attitudes to contemporary school curricular reform: current view* - práce hlavní řešitelky na tvorbě příspěvku: *Developing Czech teachers´ attitudes to contemporary school curricular reform: comparison* *Czech teachers´ attitudes to contemporary school curricular reform: current view* *Developing Czech teachers´ attitudes to contemporary school curricular reform: comparison* - editace textu v obou příspěvcích hlavní řešitelkou - průběžná práce řešitelky na tvorbě podkladů pro navazující publikační výstup monografii

Září – říjen 2015:	- další aktivní odborná činnost hlavní řešitelky: odborná analýza a komparace zjištění z let 2007 a 2015 - zahájení tvorby třetího z avízovaných příspěvků (publikačních výstupů) ve spoluautorství Vrabcová Daniela, Pazlarová Alena - konference Istanbul – zajištění prezentace hlavních zjištění a obou příspěvků hlavní řešitelkou na konferenci ICEEPSY 2015
Listopad – prosinec 2015	- zahájení tvorby na třetím z avízovaných příspěvků (publikačních výstupů), který je druhým avízovaným příspěvkem ve spoluautorství Vrabcová Daniela, Pazlarová Alena - vypracování závěrečné zprávy projektu, včetně doporučení pro vzdělávání učitelů PdF UHK - práce hlavní řešitelky na dalších podkladech využitelných v rámci monografie Český učitel ve srovnání

Za důležitý výstup výzkumného šetření je třeba považovat i soubor dat, který bude v budoucnu dále využíván a zpracováván.

Do 31. 12. 2015 byly výzkumné cíle projektu všechny kromě druhého příspěvku ve spoluautorství; tento příspěvek je v procesu vzniku. Ke zpoždění došlo v důsledku zpožděného ukončení sběru dotazníků a komplikovaného sběru dat, což způsobilo následnou kolizi potřeby časových nároků na tvorbu příspěvku s výukovými povinnostmi hlavní řešitelky v období říjen - prosinec 2015. Druhý příspěvek ve spoluautortsví bude dokončen a předložen do recenzního řízení do konce ledna 2016.

Obsahový přínos projektu:

Hlavním záměrem projektu bylo přispět k bližšímu poznání učitelova subjektivního hodnocení současné kurikulární reformy. Teoretickým východiskem výzkumného šetření je konstrukt proinovační angažovanosti, empirickým východiskem bylo výzkumné šetření Vrabcové (2007) realizované a prezentované v rámci disertační práce autorky. Ze zahraničních prací je využito příspěvků z oblasti teorie vzdělávací změny (zejména Rogers, 1969, Havelock a Zlotolow, 1995, Hall a Hord, 1987, Shotsberger a Crawford, 1999, Ellsworth, 2001, Fullan, 2001). Hlavní motivy pro zaměření projektu vyplývají z aktuálních příspěvků v oblastech: teorie vzdělávací změny a inovace, kultury školy, školního klimatu a řízení školy, z pedeutologicky zaměřených prací, ze sociální psychologie, z charakteru i potřeby kontinuálního inovativního procesu v oblasti klíčové pro Pedagogickou fakultu UHK – tj. v oblasti pregraduálního a dalšího vzdělávání učitelů.

V rámci projektu je učitelovo subjektivní hodnocení podmínek inovační změny ve školství využito za účelem diagnostiky míry i vnitřní struktury proinovační angažovanosti učitele. Výzkumný projekt umožnil nahlédnout do učitelova subjektivního hodnocení české kurikulární reformy v tzv. třetí fázi dle Janíka (2013). S ohledem na kvalitativní zjištění a zkušenosti ze škol vyplývá, že formání tlak na učitele se ukazuje jako méně účinný, spíše neúčinný. Efektivita se zvyšuje s pozitivní motivací, dlouhodobého charakteru, na úrovni školy; tuto skutečnost je třeba mít na paměti i s ohledem na potvrzující se tendenci k ambivalenci a rezistenci učitelů v Královéhradeckém kraji: ve všech sledovaných doménách sledovaných postojů (kognitivní, afektivní, konativní). Ambivalence se jeví být rysem třetí fáze kurikulární reformy: modifikace reformy (Janík, 2013).

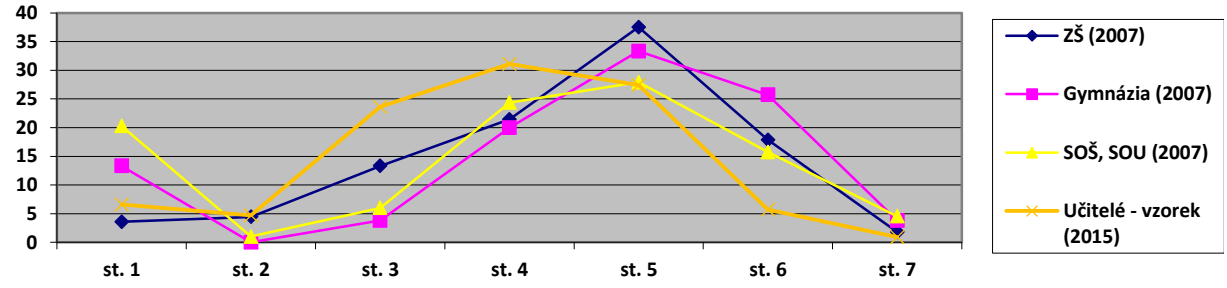
Komparace dat z let 2007 a 2015 ukazuje nižší podíl učitelů, kteří v sektoru sekundárního vzdělávání deklarují pociťování vybraných profesionálních potřeb. Pokles je nejvýraznější v případě potřeby pomoci s pracovními úkoly ve vztahu k RVP a ŠVP; v roce 2007 tuto potřebu pociťovalo téměř 59 %, v roce 2015 necelých 41 % učitelů ve vzorku, což je o 18 % méně. Téměř 10 % pokles je patrný v případě potřeby výcviku v souvislosti s RVP a ŠVP: v roce 2007 tuto potřebu deklarovalo 57 %, v roce 2015 47 %.

Afektivní rovina prokompeteční angažovanosti učitelů sekundárního vzdělávání v Královéhradeckém kraji je specifická zjištěními vyplývajícími z následující tabulky.

	Tab. 1	Učitelé sekundárního vzdělávání ve vzorku	
		Prokompeteční anagžovanost Mean	**Výskyt (často – velmi často)**
Negativní emoce	Strach kvůli obsahovým změnám	3,93	29,3 %
	Smutek kvůli obsahovým změnám	4,44	24,6 %
	Zloba kvůli obsahovým změnám	4,28	29,3 %
	Strach kvůli způsobu zavádění ŠVP	3,69	25,5 %
	Smutek kvůli způsobu zavádění ŠVP	4,27	22,7 %
	Zloba kvůli způsobu zavádění ŠVP	4,31	21,7 %
Pozitivní emoce	Radost kvůli obsahovým změnám	2,77	3.7 %
	Radost kvůli způsobu zavádění ŠVP	2,76	7.5 %

Ve shrnutí, každá ze sledovaných negativních emocí je prožívaná 20 – 25 % učiteli ve vzorku, zatímco pozitivní emoce – uspokojení/radost je pociťována pouze necelými 4 % ve vztahu k obsahu RVP a ŠVP a 7,5 % ve vztahu k implementaci změny. Z hlediska hodnot prokompetenční angažovanost je potvrzena tendence k ambivalenci a rezistenci. Hodnoty v rozmezí 2,76 – 4,44 (min: 1, max: 7).

Prokompetenční angažovanost z hlediska konativní dimenze je u učitelů ve vzorku nejvyšší ve věkové skupině do 29 let; tato věková skupina deklaruje nejvyšší využívání metod postavených na diskusi žáků a řešení problémů. Podobné zjištění vyplývá i ve skupině učitelů s praxí do 5 let. Metoda postavená nejmenší měrou na rozvíjení klíčových kompetencí žáků, *´žáci si dělají výpisky z učitelova výkladu´* je nejvíce užívaná učiteli v obcích do 5 tisíc obyvatel, učiteli s praxí nad 28 let a učiteli vě věku nad 60 let. Nejvyšší míra proinovační angažovanosti je patrná u učitelů s prací 11-15 let.



Obr. 2 Stupně povědomí o RVP (2007 vs. 2015)

Z následující tabulky vyplývá, že v roce 2015 dochází v porovnání s rokem 2007 k nárůstu ambivalence a tendence k rezistenci v rovině konativní. Toto shrnující tvzení je založeno a podpořeno zejména následujícími zjištěními:

- menší podíl respondentů vykazujících vyšší stupeň povědomí (stupně 5 – 7),

- vyšší ambivalence (vyšší podíl respondentů v centrálním stupni povědomí, st. 4),
- znatelně vyšší podíl respondentů ve stupni povědomí 3 (tzv. nízké povědomí),
- vyšší podíl ve stupních povědomí 1 (nulové povědomí) a 2 (velmi nízké povědomí).

Splnění kontrolovatelných výsledků řešení:
Plán:

- publikační výstup č. 1: příspěvek v recenzovaném nebo impaktovaném periodiku, který bude vybrán v souladu s nově schválenou metodikou
- publikační výstup č. 2 – 3: dva příspěvky – publikační výstupy v Procedia – Elsevier, vč. aktivní účasti a prezentace na konferenci a publikování v konferenčním výstupu na zahraniční konferenci – například:
  6th International Conference on Education & Educational Psychology 2015 (ICEEPSY 2015) - Istanbul, Turecko, 13. - 17. říjen 2015

Výsledek ad publikační výstup č. 1: Publikační výstup č. 1 bude dokončen do konce ledna 2016. Ke zpoždění došlo v důsledku zpožděného ukončení sběru dotazníků a komplikovaného sběru dat.

Výsledek ad publikační výstup č. 2 - 3: Aktivní účast na plánované konferenci byla realizována dle plánu. Hlavní řešitelka prezentovala na konferenci dva příspěvky: jeden příspěvek formou orální prezentace, jeden příspěvek formou posteru.

Odborné články:
VRABCOVÁ, Daniela, PAZLAROVÁ, Alena. *Czech teachers´ attitudes to contemporary school curricular reform: current view. Istanbul: ICEEPSY, 2015.*
VRABCOVÁ, Daniela. *Developing Czech teachers´ attitudes to contemporary school curricular reform: comparison. Istanbul: ICEEPSY, 2015.*

Články byly přijaty, jejich publikování je plánováno v roce 2016. Následně bude očekáváno potvrzení o jejich indexování. Poté proběhne zápis do OBD.

Přehled realizovaných výdajů:

Navrhovaná položka	Reálná výše čerpaných výdajů
Osobní náklady: odměna řešitelce, odvody	3.996,25 Kč
Jiné ostatní náklady: stipendia Bc. Alena Pazlarová, obor: NZS2NJ, NZS2ON, ID: 14P0384 číslo účtu je: 195921992/0600 bankovní poplatky, cestovní pojištění	8.000Kč 744,02Kč
Materiálové náklady: kancelářské potřeby, nosiče dat, knihy	27.294,72 Kč
Další náklady: služby, konferenční poplatek/dva příspěvky, tisk posteru	19.498,35 Kč
Cestovné: tuzemské – sběr dat na školách, zahraniční – letenka, ubytování Istanbul, cestovní pojištění	22.846 Kč
Kurzové ztráty	400,66 Kč
Celkem	**82.780 Kč**

Povinné přílohy

a) Kopie publikačních výstupů č. 2 a 3.
   Článek č. 1 bude dodán po publikování.
b) Výpis z OBD – výsledky publikační činnosti podpořené projektem. (chybí- zatím není zaneseno do OBD)
c) Výsledovka z ekonomického informačního systému Magion – vyúčtování dotace.

Vypracovala: Mgr. Daniela Vrabcová, Ph.D.
V Hradci Králové, dne 4. 1. 2016

Příloha č.1: Publikační výstupy

Future Academy®'s Multidisciplinary Conference

Czech teachers´ attitudes to contemporary school curricular reform: current view

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Abstract

The paper focuses on the issue: *What are the current Czech teachers´ attitudes to the school curricular reform in 2015?* The first part describes some of the most dominant documents as well as issues or aspects of educational change/s initiated in 2001 by the key White Paper (*National Programme for Education Development).* The focused aspects include: framework educational programmes (FEPs), school educational programmes (SEPs), pupils´ key competences, electronic evidence of pupils, state-level of maturita examination, school optimization (merging and closing down of schools), school self-evaluation, teaching standards, innovative teaching technology. The latter part specifies 2015 survey, including key methodological aspects as well as key empirical findings (main technique: questionnaire, SPSS, sample: secondary education teachers). The survey monitors teachers´ attitudes to selected aspects of the educational change. There are employed descriptive, analytical and comparative views. Teachers´ attitudes are viewed as inner components of subjective evaluation substituting also key element of school culture; the survey is based on Concerns Based Adoption Model (CBAM). The paper provides an insight into the current view of teachers´ attitudes to the contemporary school curricular reform (2015).

Peer-review under responsibility of Future Academy® Cognitive Trading.

Keywords: educational change; types of changes; Czech teachers; attitudes; pro-innovativeness; resistance

1. Introduction

Teachers in the Czech Republic have been active participants of quite a complex school educational change, so-called contemporary Czech school curricular reform. In the first part of the paper there are specified some of the most dominant documents as well as issues or aspects of educational change/s initiated in 2001 by the key White Paper (*National Programme for Education Development)*. The reform description in terms of three partial stages (systemic recontruction, general implemenation, reform modification according to Janík, 2013) is applied to monitor Czech teachers´ attitudes during the so-called reform modification**.** This paper focuses on the issue: *What are the current Czech teachers´ attitudes to the school curricular reform in 2015?* The survey follows some other previous efforts of the author in this area and uses concept of *´competency-oriented concern´* (positive attitudes to competency-oriented educational change/s). The concept is grounded also in concept *´innovation-oriented concern´* (synonyms: *´positive attitudes to innovations generally´*, *´pro-innovative concern´*, *´pro-innovative attitudes´, ´pro-innovativeness´). ´Innovation-oriented concern´* is viewed as a complex of not only subjective evaluation and emotional feelings in the direction of innovative changes, but also as tendencies to innovativeness. Pro-innnovative attitudes represent a construct formed by selected components of educational change theories (Rogers, 1969, Hall, Hord, 1987, Shotsberger, Crawford, 1999, Havelock, Zlotolow, 1995). The subject of pro-innovative concern is represented by exogenous conditions of innovative

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changes but also teachers´ self-assessment of their professional competencies. (Vrabcová, 2006). The concept *´competency-oriented concern´* (Vrabcová, 2007) is based in Houška and Tlustý (1977) typology of five basic attitudes to society; consequently the basic attitudes are applied for differentiating five levels of *´competency-oriented concern´* (Vrabcová, 2007):

- competency-oriented involvement,
- competency-oriented conformity,
- competency-oriented indifference (or/and ambivalence),
- competency-oriented disagreement (disagreement with competency-oriented teaching),
- competency-oriented resistance (active resistance to competency-oriented teaching).

The main aim of the paper is to present selected findings of empirical research realized within a so called specific research project at Faculty of Education University Hradec Králové during the year of 2015. The data are related to diagnosis of Czech secondary education teachers´ pro-innovative attitudes to competency-oriented school reform initiated almost 15 years ago. The paper focuses on attitudes to Framework Education Programmes as key curricular documents of the education reform. Fundamental features of the Czech school curricular change are specified in the following section. The change is staged and the third stage of reform modification is surveyed from the perspective of teachers´ attitudes and selected aspects.

2. Czech school curricular reform: basic specific features

Janík (2013) describes the Czech school curricular reform as a partial change of only one specific part of the education system under the condition that the curricular reform is a component of wider educational reform called educational transformation. The key change aspects include: framework educational programmes (FEPs), school educational programmes (SEPs), pupils´ key competences, electronic evidence of pupils, state-level of maturita examination, school optimization (merging and closing down of schools), school self-evaluation, teaching standards, innovative teaching technology. The Czech school curricular reform might be divided into three stages (Janík, 2013): 1. systemic reconstruction, 2. general implementation, 3. reform modification. The stages can be dated and specifed briefly in the following way (for more see Vrabcová, 2015):

1/ Systemic reconstruction (1999-2004)

According to some descriptions, this stage might be considered to be initiated in 1999 by Educational Strategy (Koncepce vzdělávání, MŠMT, 1999) as one of the key documents. Another key document that is often described as the one initializing the reform and the stage is the White Paper (*National programme for Education Development,* MŠMT, *2001*). Among other documents forming the base for this stage of systemic reconstruction we can enumerate:

- *Long-term Conception of Education and Educational System Development in the Czech Republic* (authorized in 2002),
- consequent school-curricular documents called ´framework educational programmes´ specified for all types and stages of school education in the Czech Republic, for example: *Framework Educational Programme for Pre-primary Education* (2002), *Framework Educational Programme for Basic Education* (initial pilot version: 2002, authorized obligatory version: 2004) etc.

In the year of 2002 the first versions of some of the framework educational programme for vocational secondary education originated at the level of wider training fields, and in accordance with the proposed Education Act. Between the years 2002-2003 *National Institute of Vocational Training* (*Národní ústav pro odborné vzdělávání*) realized a project "*Posun – Move. Let´s help school to teach differently"* aiming to assist editing school educational programmes. (Phare NUTS II). In 2003 the modified conception of framework educational programmes are peer-reviewed, and these steps result in modified manual/guidebook and further rules for further creating other set of framework educational programmes for vocational training. It was only in 2004 that all framework educational programmes of vocational training started to be conceived. This stage is to be closed by the *Education Act No. 561/2004* and Act No. 563/2004 Collection of Law, on Pedagogical Staff.

2/ General implementation (2005 – 2011)

Within this stage there can be traced some other projects aiming to support implementing the new curricular documents in the field of secondary vocational training (marked with letter S); examples lie in a project called Pilot S. Pilot S involved 30 secondary vocational schools and apprentice schools from the whole Czech Republic except for Prague, social partners. This project was divided into three waves/stages marked by end-years 2006,

2007, 2008). The versions of curricular documents from this second stage of general implementation are/were specific by inconsistency and unproperly specified relations between concepts, such as objectives, competences, standards, in particularly.

Inconsistency was apparently proved even on the basis of partial content analysis focusing key competences and cross-curricular topics within four framework educational programmes (for pre-primary education, basic education, grammar schools, and secondary vocational training). Supporters of extreme subjectivism or those prioritizing content creating model of education projecting might equate this inconsistency with the positive effects, might see it as a sign for existing pluralism in educational environment. However, it rather represents an obstacle to identifying key competences as well as competency-oriented teaching practice (Vrabcová, 2007).

3/ Reform modification (2012 -)

This stage, that is considered to start in 2012, opens the current situation and is mostly related to the intended revision and modification of FEPs, as well as other activities in the field of educational and curricular policy (including preparation of the Educational Stategy 2020). This stage is specific with other documents:

- *Framework Educational Programme for Pre-Primary Education (revised version, 2012),*
- *Framework Educational Programme for Basic Education (revised version, 2013),*
- *some FEPs for Secondary Vocational Training (2012),*
- *Education Policy Strategy of the Czech Republic for 2020 (2014),*
- *Act No. 472/2011 (School Act Amendment, 2011),*
- *Act No. 370/2012 (School Act Amendment, 2012),*
- *Act No. 197/2014 (Act on Pedagogical Staff, Amendment, 2014).*

This stage is specific by supplementary re-orientation of the curricular reform (Janík, 2013). The following sections present selected findings of 2015 survey, including the main methodological aspects of the survey. The focused issue is: *What are the current Czech teachers´ attitudes to the school curricular reform in 2015?*

3. TEAPEC survey 2015: methodological features

What are the current Czech teachers´ attitudes to the school curricular reform in 2015? In order to unfold this question, a so-called TEAPEC 2015 survey was realized in 2015. The survey views attitudes as value-oriented or objective side-oriented mental states substituting a permanent system of positive or negative evaluation, emotional feelings and tendency to act in favour or against the social object of the attitude (Krech, Crutchfield and Ballachey, 1968, Lašek, 2003). Attitudes as subjective evaluation relations of teachers in given surveys represent the starting point for monitoring teacher´s innovativeness vs. tendency to resist educational changes. The attitudes are monitored by crediting appetency/aversion on 7 - point scales of Likert type. This section focuses on specifying key methodological features of the survey.

3.1 Used methods

The survey uses a questionnaire called TEAPEC (***Tea**chers **P**erception of **E**ducational **C**hange).* The questionnaire TEAPEC was prepared by the author (Vrabcová, 2007); the questionnaire is structured on the grounds of questionnaire used and verified in surveys of 2006 including factor analysis. The same questionnaire is used in 2015 so that comparison was possible. The questionnaire is divided into five areas: Part I. maps the basic information about a school/institution, where the respondent works. Part II. focuses on data characterizing the respondent individually. Part III. measures the cognitive dimension of teachers´ attitudes – respondents´ awareness of FEP. Part IV. composes of two sections: Section IV. A (items 16 – 45) and Section IV. (items 46 – 74). Each of the sections monitors four item groups/clusters. Part V. (items 75 – 90) focuses on pedagogical competence via teachers´ self-assessment as a potential source of competency-oriented concern and resistance to innovative changes in the sphere of education. Statistical data processing for the purpose of this paper uses: descriptive statistics, chí-squared test χ^2 and other comparison with the values of corresponding test

criteria or calculation of relevant coefficients. SPSS is used, selected statistical techniques are specified when applied and necessary.

3.2 Research sample

The first stage of TEAPEC 2015 survey was realized between April – June 2015 on the sample of secondary education teachers in Královéhradecký region (one of the fourteen regions of the Czech Republic). The research sample composes of four main subgroups of practicing secondary education teachers. Due to the fact, evident from Table 1, that the types of schools/education and the subgroups are not representative, and are too small in the survey 2015, and not equally divided at this stage of research, the empirical data from 2015 are not analyzed according to the type of schools.

Table 1. Sample according to school/education types

Types of school/education	Basic school 2nd stage	Grammar school lower + upper secondary education	Secondary vocational training schools (SVT)	Integrated schools Grammar + SVT	Total
Frequency	25	11	50	20	106
Percent	23.6 %	10.4 %	47.2 %	18.9 %	100 %

The following table illustrates key features of the sample; structure of the distributed questionnaires is stratified according to the proportion and number of schools in individual disctricts of Královéhradecký region.

Table 2. Response rates: sample and district-based

	Hradec Králové district	Rychnov nad Kněžnou district	Trutnov district	Jičín district	Náchod district	Total ∑
Distributed questionnaires	100/25 %	68/17 %	88/22 %	64/16 %	80/20%	400/100 %
Response rate: frequency	26	38	13	16	13	106/ 27 %
Response rate: percent	26/100 26 %	38/68 50 %	13/88 15 %	16/64 25 %	13/80 16 %	106/400 27 %

Table 2 shows the total response rate of questionnaires: 27 % (106 qestionnaires out of 400). The response rate of the questionnaires ranges in individual districts from 15 % in the district of Trutnov up to 50 % in the district of Rychnov nad Kněžnou. The questionnaire response rate is very low. Low response rate is partly commented within the presentation of the main selected findings. It is evident that there were distributed 400 questionnaires.

As to the gender the research sample (n = 106) consists of 26.4 % men and 73.6 % women. Age ranges between 23 – 62 years. Average age is: 42.89 years. Length of teaching practice ranges between: 0 – 39 years (mean: 15.92). Despite the fact that the sample size illustrates the first stage of the research in a form of pre-research, it is evident that all groups copy the feminization trend in educational sector. In the following Table 3 there are other characteristics of the sample: structure of the sample according to age groups, length of teaching practice and the school locality size.

Table 3. Sample according to teaching practice groups, age groups and school locality size groups

Sample teaching practice groups	Sample age groups	Sample school locality size groups

below 5 years: 22 %	below 29 years: 12 %	below 5,000 inhabitants: 26 %
6 - 10 years: 14 %	30 - 39 years: 29 %	below 15,000 inhabitants: 33 %
11 - 15 years: 20 %	40 - 49 years: 25 %	below 50,000 inhabitants: 20 %
16 - 27 years: 27 %	50 - 59 years: 28 %	over 50,000 inhabitants: 21 %
over 28 years: 17 %	over 60 years: 6 %	

4. Selected empirical findings from the perspective of attitudes to FEP

This section presents some of the key data related to values of secondary education teachers´ competency-oriented concern in Královéhradecký region. The values are monitored as attitudes to FEP in three dimensions: cognitive, affective, and conative.

4.1 Cognitive dimension of attitudes to FEP

The cognitive dimension of attitudes to FEP is monitored by a multiple-option questionnaire item. By various combinations of false and true replies are grouped into seven awareness stages (seven stages of what respoendents know of FEP and SEP): excellent awareness (7), very good awareness (6), uncertain awareness (5), very uncertain awareness (4), low awareness (3), very low awareness (2), zero awareness (1). The distribution of seven stages of awareness is evident from Figure 1, the line illustrating the awareness stages of teachers in 2015 is compared with lines illustrating awareness of three subgroups that were compared and analyzed in 2007 survey (subgroups of teachers at basic school, grammar school and secondary vocational school (vocational training).

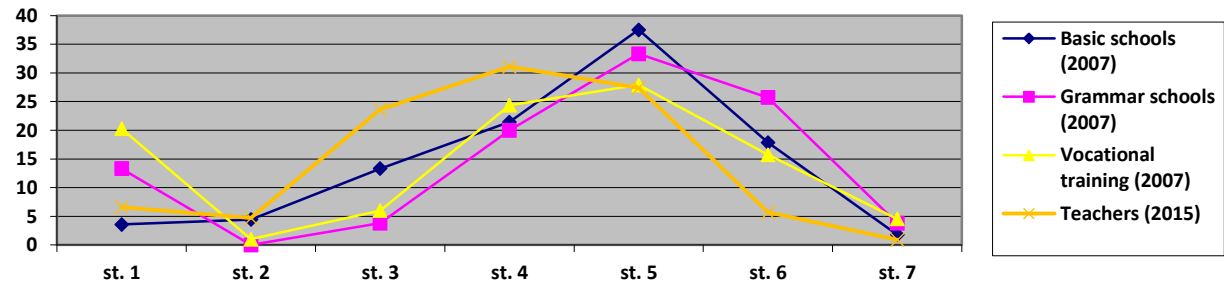

Fig. 1. Stages of teachers´awareness of FEP (2015) in the context of relevant findings (survey 2007)

Figure 1 illustrates the following thesis: The survey 2015 sample proves apparently increased ambivalence and lower awareness of key documents of the contemporary curricular reform. This statement is based and supported particularly by the following findings:

- lower proportion of respondents at the higher stages of awareness (st. 5 – 7),
- higher ambivalence (according to higher occurrence of central stage 4,
- apparently higher proportion of stage 3 (low awareness),
- tendency to higher proportion at the stages 1 (zero) and 2 (very low) awareness in 2007 vs. 2015 comparison.

Data from 2007 survey are shown for basic insight (more detailed comparison of selected empirical findings is provided in another author´s contribution in this conference proceedings). This paper onwards focuses on what we learn about Czech teachers in the sample from the survey of 2015.

According to separate stages of awareness of FEP in the survey 2015, the sample is dominated by rather neutral awareness (central stage of awareness - st. 4: 31.1 %, st. 5: 27.4 %, st. 3: 23.6 %). Stages of higher awareness, stages 6 (very good) and 7 (excellent awareness) are represented rather weakly to similar extent as the two lowest stages (st. 1 and 2). For more see Figuer 2; the figure shows that in the highest stage of awareness (st. 7 –

excellent awareness) there are only 0.9 % respondents and in the stage 6 there are 5.7 % respondents. The lowest two stages are typical for 6.6 % (st. 1) and 4.7 % (st. 2) respondents.

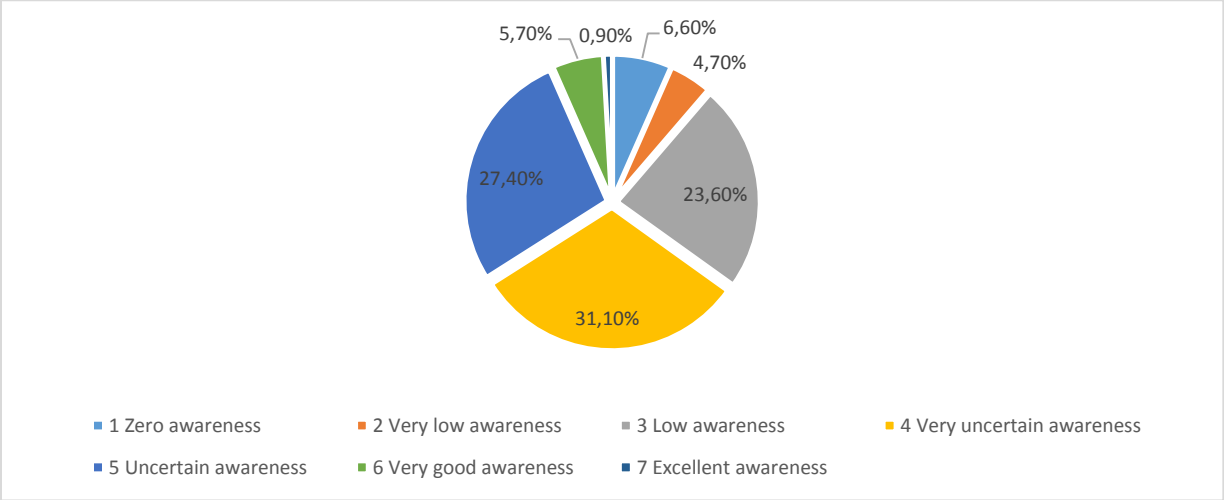

Fig. 2 Teachers awareness of FEP and SEP: stages

A more plastic insight into the teachers´ awareness of FEP and SEP is provided via the value of competency-oriented concern from the perspective of awareness: 3.89; this value proves neutral cognitive attitude with tendency to resistance. For the purpose to interpret awareness there are used three levels:

- low awareness (st. 1 – 2) – indicator of resistance (negative attitudes),
- medium awareness (st. 3 - 5) – neutral competency-oriented concern (and/or ambivalence),
- high awareness (st. 6 – 7) – indicator of competency-oriented concern (involvement - positive attitudes).

According to these levels of awareness – cognitive dimension of attitudes to FEP and curricular reform, it is possible to confirm a statement saying that *´secondary education teachers of Královéhradecký region in the sample are typical with ambivalent awareness of FEP in the sense of neutral cognitive attitude to FEP and resistant tendency´*. 82.1 % respondents fall into the level of neutral competency-oriented concern, 11.3 % into the level of low awareness as a prerequisite of resistance. Merely 6.6 % respondents fall into the level of high awareness (positive competency-oriented concern, indicator of involvement). This distribution is confirmed by standard crosstabulation between awareness and teaching practice, school locality, and age groups.

4.2 Affective dimension of attitudes to FEP

In the affective dimension there are alternate hypotheses confirmed on the significance level 0.01 for the tested statistical relationships between values of competency-oriented concern and negative emotions (sorrow, anger, fear), and positive representative (satisfaction/joy). Emotions are monitored in relation to content changes as well as in relation to FEP and SEP implementation.

Teachers´ competency-oriented concern from the perspective of emotions related to FEP and SEP range in the central (neutral) and negative level of scale values (means range between: 2.76 – 4.44). Statistically significant difference between values of competency-oriented

concern is confirmed by one-sample t-test and p-values. Each of the negative emotions is experienced by one fifth to one fourth (20 – 25 %) of teachers, while the positive emotion – satisfaction (joy) only by 3.7 % in relation to content changes, and only by 7.5 % in relation to the change implementation. The highest competency-oriented concern (involvement) is apparent in case of sorrow in relation to content changes (value: 4.44), and sorrow related to implementation (value: 4.31). For overview of emotions, values of competency-oriented concern, and proportions of teachers declaring frequent or very frequent experiencing the monitored emotions, see Table 4.

Table 4. Competency-oriented concern (COC) from the perspective of emotions in relation to FEP

		Secondary education teachers in the sample	
		Concern COC Mean	**Occurence (frequent – very frequent)**
Negative emotions	Fear because of content changes	3.93	29.3 %
	Sorrow because of content changes	4.44	24.6 %
	Anger because of content changes	4.28	29.3 %
	Fear because of SEP implementation	3.69	25.5 %
	Sorrow because of SEP implementation	4.27	22.7 %
	Anger because of SEP implementation	4.31	21.7 %
Pozitive emotions	Satisfaction because of content changes	2.77	3.7 %
	Satisfaction because of SEP implementation	2.76	7.5 %

The following chart shows proportions of teachers declaring very frequent and frequent experiencing the monitored emotions and thus enables inter-emotion comparisons in relation to change implementation and content aspects of FEP and SEP-related change.

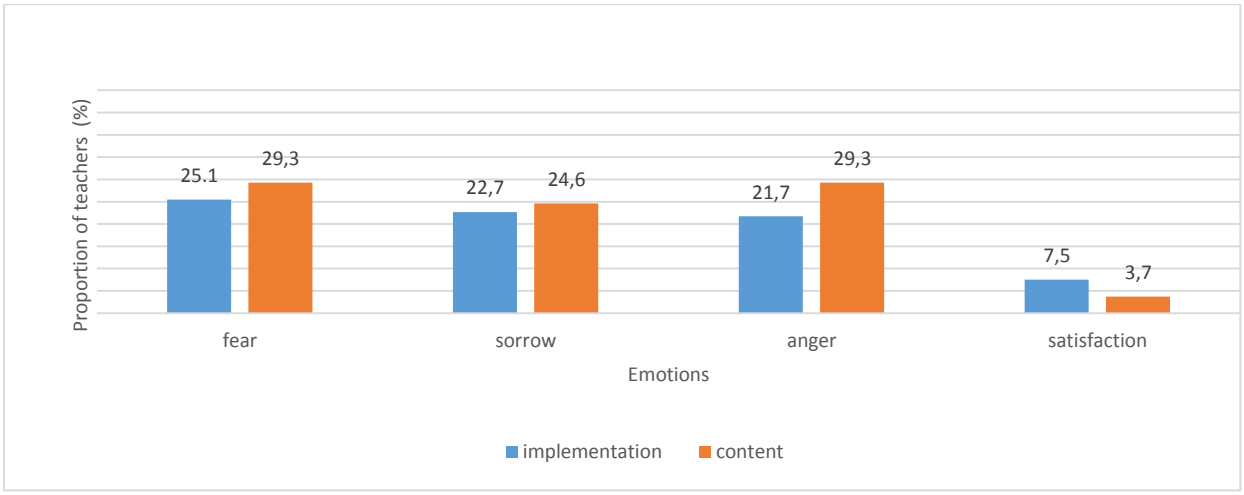

Fig. 3. Frequent or very frequent occurrence of emotions in relation to FEP and SEP

The most significant difference in the occurrence of emotions experienced by teachers is observable on the grounds of comparing any of the negative emotions vs. satisfaction/joy. As mentioned above, satisfaction is declared only by 7.5 % teachers in case of implementation, and only by 3.7 % respondents in relation to content changes.

4.3 Conative dimension of attitudes to FEP

The conative dimension of teachers´ attitudes to FEP and SEP is surveyed by five questionnaire items in which teachers at a 7-point scale *´never – very often/frequently´* express how often they in their teaching use the following teaching activities/methods:

- … pupils discuss (below: discussions, dialogue),
- … pupils excerpt from text during their individual work with text (below: notes from text),
- … pupils ask and formulate questions (below: pupils´ questions),
- … pupils identify problem situations and suggest their solutions (below: problem solving),
- … pupils take notes from teacher´s instructional monologue (below: notes from teacher´s monologue).

Four in these teaching activities represent activizing teaching methods enabling more intense development of pupils´ key competences. The activities are based on the key competences generally as well as specified in one of the FEP documents, *Framework Educational Programme for Basic Education.* One of the methods (notes from teacher´s monologue) represents informative-receptive teaching method; situation when this method dominates other methods might be considered a feature of traditional teaching philosophy oriented more on trasmission of facts instead on developing pupils´ key comepetences. As to the methods of discussion, pupils´ questions and problem solving, it stays valid that the higher competency-oriented concern values, the more frequent declared usage of these methods is. The item *´notes from teacher´s monologue´* was interpreted reversely. For the values of competency-oriented concern see Table 5.

Table 5. Values of competency-oriented concern in the conative domain (perspective of teaching methods)

	Discussions, dialogue	Notes from text	Pupils´ questions	Problem solving	Notes from teachers monologue	Methods total: conative domain
	Mean	Mean	Mean	Mean	Mean	Mean
Teachers total	**5.63**	4.25	5.42	5.37	4.25	3.42
Teachers below 29 years	**6.23**	4.38	**5.85**	**6.08**	4.00	5.31
Teachers 30 – 39 years	**5.84**	3.94	**5.68**	5.32	4.42	5.04
Teachers 40 - 49 years	5.38	4.42	5.23	5.23	4.35	4.92
Teachers 50 – 59 years	5.47	4.30	5.17	5.17	4.30	4.88
Teachers over 60 years	5.17	4.50	5.33	**5.67**	3.17	4.77
Teaching practice below 5	**6.09**	4.00	**5.96**	**5.70**	4.00	5.15
Teaching practice 6 – 10	**5.80**	4.40	4.87	5.27	5.27	5.12
Teaching practice 11 – 15	**5.71**	4.90	**5.86**	**5.62**	4.71	5.36
Teaching practice 16 - 27	5.34	4.03	5.03	5.00	4.10	4.70
Teaching practice over 28	5.28	4.00	5.33	5.33	3.39	4.67
Locality below 5.000 inh.	5.18	4.04	5.18	4.79	2.93	4.42
Locality below 15.000	5.51	4.14	5.46	5.71	5.26	5.22
Locality below 50.000	**5.95**	4.71	**5.57**	5.38	4.81	5.28
Locality over 50.000	**6.09**	4.23	**5.55**	**5.55**	3.77	5.03
Učitelé muži	5.50	4.43	5.04	**5.57**	4.29	4.97
Učitelky ženy	**5.68**	4.18	**5.56**	5.29	4.23	4.99

From the table it is evident that the highest competency-oriented concern value appears in the age group below 29 years from the perspectives of pupils discussion (value: 6.23) and problem solving (value: 6.08), as well as in the group of teachers with teaching practice below

5 years from the perspective of pupils´ discussion (value: 6.09). In the table there are, in boldprint, values proving tendency to competency-oriented concern (values over 5.55).

On the grounds of proportion and values of competency-oriented concern it is possible to argue in favour of teachers´ tendency to resist the change. The main empirical argument comes from the perspective of one method *´notes from teacher´s monologue´* in case of three compared subgroups:

- teachers from locality below 5,000 inhabitants (value: 2.93),
- teachers with teaching practice over 28 years (value: 3.39),
- teachers over 60 years of age (value: 3.17).

In the field of declared competency-oriented concern the most positively oriented teachers appear to be those in the subgroup of teachers with teaching practice between 11 – 15 years. Despite this, however, it is necessary to take into consideration the value of competency-based involvement of this subgroup; the value 5.36 appears to be a sign of prevailing tendency to ambivalence though within the relatively positive attitude scale points.

In case of our focus on comparing the means for all of the methods together (see the last column on the right, Table 5), it is evident that, in the conative level competency-oriented concern of all of the subgroups (including the whole sample), the values range between values 3.42 – 5.36. These value confirm the sample of teachers´ tendency to ambivalent or resistant attitudes to the curricular documents-related aspects of the current Czech education reform. The same confirming tendency is evident also in both cognitive and affective domains of the monitored teachers´ attitudes to the reform at the stage called by Janík (2013) as reform modification.

5. Conclusion

The current curricular reform of Czech school education represents struggle for a turnaround in the direction of pupils´ needs formulated with respect to requirements of permanently changing information society, needs of employers, and labour market. Czech educational policy following the European one aims to move the Czech education toward more autonomous school and teachers, employing more active, continual knowledge-construction, and interdisciplinary approach. In this effort the Czech teacher has been put into a position of active co-author of the school curriculum (via their team participation in creating SEP/school educational programmes). This change however, since the beginning of the reform in 2001, has unfotunately been occurring merely or rather merely at the level of one-way, unsatisfactorily and with delay in communicating and positive explaining the purpose. Despite an apparent need of adequate pressure on the change, the task to get Czech teachers on the curricular reform makers´ side has failed so far. The presented survey, particularly selected presented, data, and even other awaiting to be presented, provide the grounds for statement that Czech secondary education teachers in the sample as key agents of the change are not competency-oriented involved.

The values presented in this paper illustrate the sample of teachers´ tendency to ambivalent or resistant attitudes to the curricular documents- related aspects of the current Czech education reform. The same confirming tendency is evident in all of the three monitored domains of teachers´attitudes: cognitive, affective, and conative domains. It becomes a feature of the current reform at the stage of its so called third stage (Janík, 2013): reform modification.

Relatively negative interpretation of findings, namely stating the sample´s tendency to resist the assessed changes might be employed to add emphasis on quite extremely low response rates. Extremely low response rates can support and illustrate Czech teachers´ tendency to resist the monitored and ongoing school curricular reform despite almost fifteen years after the reform initiation. However, though extreme low response rates count, it is necessary to take into consideration even other potential causes, such as low identification with the questionnaire´s form or content, work demand during the time of questionnaire survey, for example.

The undertaken survey (2015) apparently even due to the sample size (no matter the low response rates as a cause), proves to be only a partial stage of a broader research, which will go in more details of current teachers' attitudes, resistance and pro-innovative attitudes. This paper and survey supports even more general issues to arise, for example: Is the teacher-sample´s tendency to resistance only evidence of resistance as a natural response to any change (though almost 15 years after the change initiation), or does it seem to be a sign of Czech specific feature, culturally based, and challenging theories of educational changes? This type of questions seems to indicate a direction of further deeper and broader investigation.

References

Ellsworth, J.B. (2001). *Surviving Change.* Syracuse – New York: Syracuse University.

Fullan, M. (2001). *The New Meaning of Educational Change*. New York: Teachers Press.

Hall, G. E., Hord, S. M. (1987). *Change in Schools*. New York: State University of New York Press.

Havelock, R. G., Zlotolow, S. (1995). *The Change Agent´s Guide.* New Jersey: Englewood Cliffs.

Houška, J., Tlustý, V. (1977). *Společnost, stát a jednotlivec*. Praha: SPN.

Janík, T. (2013). Od reformy kurikula k produktivní kultuře vyučování a učení. *Pedagogická orientace*, 2013, roč. 23, č. 5, s. 634 – 663.

Kelly, A. V. (2005). *The Curriculum: Theory and Practice*. London: SAGE.

Krech, D., Crutchfield, R., Ballachey, E. L. (1968). *Človek v spoločnosti: Základy sociálnej psychologie.* Bratislava: SPN.

Lašek, J. (2003). *Kapitoly ze sociální psychologie*. Hradec Králové: Gaudeamus.

MŠMT. (2001). Národní program rozvoje vzdělávání v České republice – Bílá kniha. Praha: Tauris.

Rogers, E. M. (1969). *Diffusion of Innovations*. Toronto: Collier-Macmillan.

Shotsberger, P. G., Crawford, A. R. (1999). On the Elusive Nature of Measuring Teacher Change: An Examination of the Stages of Concern Qestionnaire. Ev*aluation and Research in Education.* Vol. 13, No. 1.

Světlík, J. (2004). Vliv kulturních dimenzí na řízení školy. *Pedagogická orientace* 2004, č. 4, s. 31-45.

Vrabcová, D. (2007). Proinovační angažovanost českého učitele v empirickém šetření. In *Svět výchovy a vzdělávání v reflexi současného pedagogického výzkumu*. České Budějovice: Pedagogická fakulta JU.

Vrabcová, D. (2007). Učitel jako inovační činitel ve školství (Dissertation thesis). Olomouc: Pedagogická fakulta Univerzity Palackého.

Vrabcová, D. (2013) Theory of educational changes as a component of teacher training curriculum (pp. 4530 – 4534). Sevilla, *ICERI 2013 Proceedings.* Available at www: http://library.iated.org/publications/ICERI2013.

Vrabcová, D. (2015). Contemporary school curricular reform in the Czech Republic as a type of educational change:
descriptive and comparative view of selected process issues and milestones. *INTED2015 Proceedings* (pp. 240
247. Madrid, Inted

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Developing Czech teachers´ attitudes to contemporary school curricular reform: comparison

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Abstract

The paper focuses on the issue: *To what extent have Czech teachers´ attitudes to the school curricular reform changed between years of 2007 and 2015*? The first part describes some of the most dominant documents as well as issues or aspects of educational change/s, initiated in 2001 by the key White Paper (*National Programme for Education Development).* The latter part specifies and compares two surveys (2007, 2015), including key methodological aspects as well as key empirical findings (main technique: questionnaire, SPSS, sample: secondary education teachers). Presented surveys monitor teachers´ attitudes to selected aspects of the educational change. There are employed descriptive, analytical and comparative views. Teachers´ attitudes are viewed as inner components of subjective evaluation substituting also key element of school culture. The surveys employ teachers´ subjective evaluation representing the essence of Concerns Based Adoption Model (CBAM) that is used as a methodological context as well as a source of tools to measure stages of concern at the level of individual human beings. The paper provides an insight into the comparative view of teachers´ attitudes at both stages of general implementation (2007) and reform modification (2015).

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Keywords: educational change; types of changes; Czech teachers; attitudes; pro-innovativeness; resistance; surveys; stages; CBAM; general implementation; reform modification; comparison

5. Introduction

Teachers in the Czech Republic have been active participants of quite a complex school educational change that is called contemporary Czech school curricular reform. In the first part of the paper there are specified some of the most dominant documents as well as issues or aspects of educational change. The reform description in terms of three partial stages (systemic reconstruction, general implementation, reform modification) is applied to monitor

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development of Czech teachers´ attitudes to the ongoing change. This paper focuses on the issue: *To what extent have Czech teachers´ attitudes to the school curricular reform changed between years of 2007 and 2015*? The paper follows some other previous efforts of the author in this area and uses concept of *´competency-oriented concern´* (positive attitudes to competency-oriented educational change/s). The concept is grounded also in a more general concept *´innovation-oriented concern´* (synonyms: *´positive attitudes to innovations generally´*, *´pro-innovative concern´*, *´pro-innovative attitudes´, ´pro-innovativeness´). ´Innovation-oriented concern´* is viewed as a complex of not only subjective evaluation and emotional feelings in the direction of innovative changes, but also as tendencies to innovativeness. Pro-innnovative attitudes represent a construct formed by selected components of educational change theories (Rogers, 1969, Hall, Hord, 1987, Shotsberger, Crawford, 1999, Havelock, Zlotolow, 1995). Basic attitudes to competency-oriented change and teaching might be differentiated into five levels of *´competency-oriented concern´* (Vrabcová, 2007): competency-oriented involvement, conformity, indifference (ambivalence), disagreement, resistance.

The main aim of the paper is to present selected findings that are based on comparing two questionnaire surveys of 2007 and 2015. The paper focuses on teachers´ competency-oriented concern from the perspective of selected aspects that, according to selected theories of educational changes, play a very important role in the educational changes. The perspectives applied in this paper include: professional needs, and CBAM-based stages of concern. Fundamental features of the Czech school curricular change are specified in the following section.

6. Basic features of the monitored two stages of Czech school curricular reform

Janík (2013) describes the Czech school curricular reform as a partial change of only one specific part of the education system under the condition that the curricular reform is a component of wider educational reform called educational transformation. The key change aspects include: framework educational programmes (FEPs), school educational programmes (SEPs), pupils´ key competences, electronic evidence of pupils, state-level of maturita examination, school optimization (merging and closing down of schools), school self-evaluation, teaching standards, innovative teaching technology. The Czech school curricular reform might be divided into three stages (Janík, 2013): 1. systemic reconstruction, 2. general implementation, 3. reform modification. For more details about each of the stages see Vrabcová (2015). With respect to the two surveys focusing the stage 2/ general implementation and stage 3/ reform modification, only these stages are specified below.

Stage of general implementation (2005 – 2011)

Within this stage, following systemic reconstruction (1999-2004), there can be traced some other projects aiming to support implementing the new curricular documents in the field of secondary vocational training; examples lie in a project called Pilot S. Pilot S involved 30 secondary vocational schools and apprentice schools from the whole Czech Republic except for Prague, social partners. This project was divided into three waves/stages marked by end-years 2006, 2007, 2008). The versions of curricular documents from this second stage of general implementation are/were specific by inconsistency and unproperly specified relations between concepts, such as objectives, competences, standards, in particularly.

Inconsistency was apparently proved even on the basis of partial content analysis focusing key competences and cross-curricular topics within four fundamental types of framework educational programmes (for pre-primary education, for basic education, for grammar schools, for secondary vocational education). Supporters of extreme subjectivism or those prioritizing content creating model of education projecting might equate this inconsistency with the positive effects, might see it as a sign for existing pluralism in educational

environment. However, it rather represents an obstacle to identifying key competences as well as competency-oriented teaching practice (Vrabcová, 2007).

Stage of reform modification (2012 -)

This stage, that is considered to start in 2012, opens the current situation and is mostly related to the intended revision and modification of FEPs, as well as other activities in the field of educational and curricular policy (including preparation of the *Educational Strategy 2020*). This stage is specific with other documents:

- *Framework Educational Programme for Pre-Primary Education (revised version, 2012),*
- *Framework Educational Programme for Basic Education (revised version, 2013),*
- *some FEPs for Secondary Vocational Training (2012),*
- *Education Policy Strategy of the Czech Republic for 2020 (2014),*
- *Act No. 472/2011 (School Act Amendment, 2011),*
- *Act No. 370/2012 (School Act Amendment, 2012),*
- *Act No. 197/2014 (Act on Pedagogical Staff, Amendment, 2014).*

This stage is specific by supplementary re-orientation of the curricular reform (Janík, 2013).

Both general implementation and reform modification appear to be the most relevant for this paper because the following section presents selected findings based on two surveys: TEAPEC 2007 and TEAPEC 2015 with the purpose to get an insight into teachers´ attitudes to the school curricular reform in these particular stages.

7. Methodological features of TEAPEC survey 2007 and 2015

To what extent have Czech teachers´ attitudes to the school curricular reform changed between years of 2007 and 2015? In order to unfold this question a so-called TEAPEC 2015 survey was realized in 2015; the main aim was/is to make inter-survey comparison with TEAPEC 2007 survey. This section focuses on specifying key methodological features of both surveys.

3.3 Methods applied

Both of the 2007 and 2015 surveys view attitudes as value-oriented or objective side-oriented mental states, in the sense of permanent system of positive or negative evaluation, emotional feelings and tendency to act in favour or against the social object of the attitude (Krech, Crutchfield and Ballachey, 1968, Lašek, 2003). Attitudes as subjective evaluation relations of teachers in given surveys represent the starting point for monitoring teacher´s innovativeness vs. tendency to resist educational changes. The attitudes are monitored by crediting appetency/aversion on the 7-point scale of Likert type.

The surveys (2007, 2015) use a questionnaire called TEAPEC (***Tea****chers* ***P****erception of* ***E****ducational* ***C****hange). The* questionnaire was prepared by the author and in the survey of 2007 was used as one of the main methods. The questionnaire is structured on the grounds of questionnaire used and verified in surveys of 2006 including factor analysis. The questionnaire is divided into five areas: Part I. maps the basic information about a school/institution, where the respondent works. Part II. focuses on data characterizing the respondent individually. Part III. measures the cognitive dimension of teachers´ attitudes – respondents´ awareness of FEP. Part IV. composes of two sections: Section IV. A (items 16 – 45) and Section IV. (items 46 – 74). Each of the sections monitors four item groups/clusters. Part V. (items 75 – 90) focuses on pedagogical competence via teachers´ self-assessment as a potential source of competency-oriented concern and resistance to innovative changes in the

sphere of education. Statistical data processing for the purpose of this paper uses: descriptive statistics, chí-squared test χ^2 and other comparison with the values of corresponding test criteria or calculation of relevant coefficients. SPSS is used, selected statistical techniques are specified when applied and necessary.

3.2 *Research samples of TEAPEC 2015 and TEAPEC 2007*

The survey TEAPEC 2007 (***Tea**chers **P**erception of **E**ducational **C**hange)* was realized between: November 2006 – January 2007. The first stage of TEAPEC 2015 survey was realized between: April – June 2015. Both surveys were realized on the sample of secondary education teachers in Královéhradecký region (one of the regions of the Czech Republic). Both of the research samples compose of four main subgroups of practicing secondary education teachers.

Table 1. Structures of samples 2007 and 2015 according to school/education types

	Types of school/education	Basic school 2nd stage	Grammar school lower + upper secondary education	Secondary vocational training schools (SVT)	Integrated schools Grammar + SVT	Total
2015	Frequency	25	11	50	20	106
	Percentages	23.6 %	10.4 %	47.2 %	18.9 %	100 %
2007	Frequency	112	105	197		414
	Percentages	27.1 %	25.4 %	47.6 %		100 %

Due to the fact, evident from Table 1, that the types of schools/education and the subgroups are not representative, and are too small in the survey 2015, and not equally divided at this stage of research, the empirical data from 2015 are not analyzed according to the type of schools. In 2007 there were distributed 680 questionnaires, in the first phase of the survey 2015 there were distributed 400 questionnaires. Table 2 illustrates key features of the samples; structure of the distributed questionnaires is stratified according to the proportion and number of schools in individual districts of Královéhradecký region. Table 2 shows the total as well as district-based response rates of both surveys.

Table 2. Response rates: 2007 vs. 2015 samples total and district-based

		Hradec Králové district	Rychnov nad Kněžnou district	Trutnov district	Jičín district	Náchod District	Total
Distributed questionnaires	2015	100/25 %	68/17 %	88/22 %	64/16 %	80/20 %	400/100 %
	2007	170/25 %	130/19 %	150/22 %	115/17 %	115/17 %	680/100 %
Response rate: frequency	2015	26	38	13	16	13	106/100 %
	2007	145	43	83	70	73	414/100 %
Response rate: district-based and total percentages	2015	26/100 26 %	38/68 50 %	13/88 15 %	16/64 25 %	13/80 16 %	106/400 27 %
	2007	145/170 85 %	43/130 33 %	83/150 55 %	70/115 61 %	73/115 63 %	414/680 61 %

As to the survey of 2015 it is evident that the total response rate is quite low: 27 % (106 questionnaires out of 400), whereas in 2007 the total response rate was: 61 %. As to the district-based response rates, the response rates in 2015 in individual districts range from 15 % in the district of Trutnov up to 50 % in the district of Rychnov nad Kněžnou. Whereas in 2007 the district-based response rates range from 33 % in Rychnov nad Kněžnou up to 85 % in the district of Hradec Králové.

Extremely low response rates in 2015 can support arising a question if Czech teachers´ tendency to resist the monitored and ongoing school curricular reform is on the increase. However, despite extreme low response rates in 2015 (phase one), it is necessary to take into consideration even other potential causes, such as low identification with the questionnaire´s form or content, work demand during the time of questionnaire survey, part of the school year at the moment of data collection (in 2007 it was between the third and sixth months of the school year, in 2015 the survey was realised shortly before the school year end, between the eighth and tenth months of the school year).

As to the gender, the 2015 research sample (n_{2015} = 106) consists of 26.4 % men and 73.6 % women. Age ranges between 23 – 62 years. Average age is: 42.89 years. Length of teaching practice ranges between: 0 (1) – 39 years (mean: 15.92). As to the gender the 2007 research sample (n_{2007} = 414) consists of 29.5 % men and 70.5 % women. Age ranges between 21 – 64 years. Average age is: 41.30 years. Length of teaching practice ranges between: 0 (1) – 42 years (mean: 15.73). It is evident that both samples are feminized (though slightly more in 2015), and that the average age and teaching practice, including ranges, are comparable.

8. Comparing Czech teachers´ competency-oriented concern from the perspective of professional needs and CBAM-based stages of concern: 2007 vs. 2015

This section focuses on the issue: *To what extent have Czech teachers´ attitudes to the school curricular reform changed between years of 2007 and 2015?* Therefore, the paper provides a more contextualized insight into the current situation of Czech secondary education teachers´ attitudes to selected aspects of contemporary school curricular reform. There are presented some of the key data related to comparing selected values of secondary education teachers´ competency-oriented concern in Královéhradecký region. The values are monitored as attitudes to the school curricular reform from the perspective of professional needs in relation to *Framework Educational Programmes* (FEP) and *School Educational Programme*s (SEP), and CBAM-based stages of concern.

4.1 Competency-oriented concern from the perspective of teachers´ professional needs in relation to FEP and SEP

Teachers´ professional needs in relation to FEP and SEP are targeted by five questionnaire items. Values of competency-oriented concern were tested (NCSS) and in case of three of these items there were confirmed alternate hypotheses in 2007. The alternate hypotheses stay confirmed on the significance level 0.05 for the tested statistical relationships between types of school/education (basic schools, grammar schools, secondary vocational training) and need of demonstrations/examples, need of skills training, and need of help with workload. This statistical conclusion from 2007 is applied as a set of comparison criteria with values that are available from the survey of 2015. For more see Table 3.

Table 3. Competency-oriented concern from the perspective of teachers´ professional needs in relation to FEP and SEP: 2007 vs. 2015 comparison

	Basic school (2007)	Grammar school (2007)	Secondary vocational training (2007)	Sample – total (2015)
	Values of competency-oriented concern (means)			
Need of demonstrations,	2,09	2,41	2,54	3.19

examples				
Need of skills training	2.65	3.30	3.02	3.65
Need of help with workload	3.35	3.91	4.09	4.00

From the values of competency-oriented concern in Table 3, when comparing all of the teacher subgroups, the relatively highest value of competency-oriented concern is evident from the perspective of secondary vocational training teachers´ need of help with workload (4.09). The lowest value is observable among the teachers of basic school (3.35) also from the perspective of the need of help with workload. In all of the subgroups of the survey 2007 we can see a slight tendency to resist the contemporary curricular reform. In the survey of 2015, without taking the types of school into consideration it is possible to confirm a sustainable tendency to resistance (this statement is based on values that are lower than the central value 4.00). However, it is necessary to point out a slight value shift forward the competency-oriented involvement. Almost all of the competency-oriented concern values (except one and only value 4.09 in secondary vocational training) from the perspective of three professional needs are higher in 2015 than in 2007 (compare the values 3.19, 3.65, 4.00 in the right Table 3 column with other values in the table). For frequent or very frequent occurrence of teachers´ professional needs in relation to FEP and SEP see Figure 1.

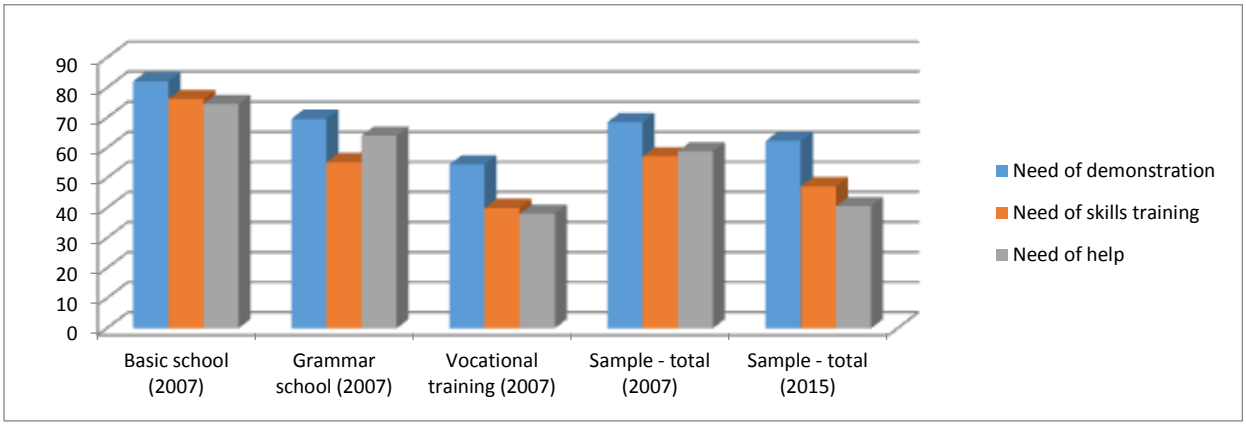

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Fig. 1. Frequent or very frequent occurrence of professional needs in relation to FEP and SEP: 2007 vs. 2015 comparison (%)

As to the inter-subgroup comparison (2007) Figure 1 shows that the highest proportions of teachers experiencing the monitored professional needs are evident in subgroup of basic school teachers while the lowest proportions are evident in the subgroup of secondary vocational training teachers. In some other words, the chart supports a tendency to direct proportion of experiencing the monitored professional needs in 2007 and the officially set date of implementing the FEP and SEP in the specific type of education/schools; the closer the date to implement the documents and competency-oriented teaching at the specific type of education was, the higher proportion of teachers experienced the professional needs.

The inter-survey comparison (2007 vs. 2015) of the total samples results in evidently decreased proportions of teachers who experience the monitored professional needs. The decrease is not insignificant. In case of need of demonstration/examples the decrease is weakest: 6.28 %; in 2007 there were 68.78 % respondents, in 2015 only 62.3 % respondents declaring to experience frequent or very frequent need of

demonstration/examples. In case of need of skills training the decrease is stronger: 9.94 %; in 2007 there were 57.14 % respondents, in 2015 only 47.2 % respondents declaring to experience frequent or very frequent need of skills training. In case of need of help with workload the decrease is strongest: 18.28 %; in 2007 there were 58.88 % respondents, in 2015 only 40.6 % respondents declaring to experience frequent or very frequent need of help with workload. Despite some potential ways to explain the decrease (such as, possible increase in teachers inner feeling of fulfilled professional needs, increased professional self-esteem or self-assessment, or, on the contrary, more intense subconscious feelings of resignation, frustration etc.) requires further exploration and analysis of more data from the questionnaire survey.

4.2 Czech teachers´ attitudes from the perspective of CBAM stages of concern

This subsection presents empirical findings related to Czech teachers´ attitudes from the perspective of stages of concern that have its roots in Concerns-based Adoption Model (CBAM). The empirical findings come from nine questionnaire items that were formulated for the purpose of monitoring Czech teachers´ attitudes in the survey of 2007; the main inspiration comes from SOCQ questionnaire original items aiming to diagnose stages of concern according to CBAM theory.

4.2.1 Core of the CBAM theory and CBAM stages of concern

The essence of the CBAM model consists in the accent on facilitators. For effective facilitating the changes it is important to understand the client, e.g. the teacher´s subjective evaluation of the change and the question how this subjective evaluation of changes is adjusted to their actions. The teacher´s subjective-evaluation plays a key role in the theory of CBAM (**C**oncerns-**b**ased **A**doption **M**odel). The basic assumption of this theory is that a change cannot be adopted by social system without the change being adopted at the level of individuals. Teachers´ adoption of the change appears easy when the change is viewed and assessed positively by the individual teacher.

The theory CBAM implies that no client system is autocratic to the extent that a change adoption could be fully and successfully regulated or forced from above or outside. It is necessary to provide individuals/teachers - with the opportunity not only to test the change/innovation content but also to make a truly independent decision to adopt/refuse innovations/changes. No matter how much centralised the system was, if the number of disapproving decisions reach a certain level, the innovation/change will come to an end (Ellsworth, 2001). The CBAM theory provides an insight into how the individual´s decision-making functions with a focus on the intended receiver; the theory is based on three dimensions: 1. stages of concern, 2. levels of use, 3. innovation configurations. The accent on subjective evaluation results from first dimension: stages of concern. Diagnostics of the stages of concern (and levels of use) is used in this theory to draw appropriate intervention strategy. In the history of the CBAM the stages of concern have been modified. For example, Shotsberger and Crawford (1999), with a view of the so-called SoCQ questionnaire survey, speak about five stages: 1/ stage of knowledge/awareness, 2/ personal dimension, 3/ stage of impact, 4/ stage of co-operation, 5/ stage of management or transmission. Stages of concern must be viewed as implying time dimension, which means that the length of implementation process is a factor of what effective strategies should be used. The move from stage to stage cannot be accelerated; the only thing that can be done is to provide sufficient support and

assistance. In case of a wrong type of support the change process can be interfered (Hall, Hord, 1987).

4.2.2 What CBAM-based stage of concern dominates among Czech teachers in the samples of 2007 and 2015?

On the grounds of factor analysis in 2007, by grouping individual data and by creating a profile based on average scores for separate CBAM-based stages of concern, the empirical data are firstly interpreted at the level of highest and second highest score frequencies (see Table 4).

Table 4. Highest score frequency (overview): comparison 2007 vs. 2015

		CBAM-based stages of concern: Highest score frequencies			
		Awareness	Personal dimension	Impact	Management and transmission
Number of teachers	Basic schools (2007)	11	0	37	1
	Grammar schools (2007)	7	0	48	2
	Secondary vocational training (2007)	10	1	76	5
	Sample – Total (2007)	28	1	**161**	8
	Sample – Total (2015)	8	28	**36**	8

According to Table 4 and the overview of the highest score frequencies in CBAM-based stages of concern, with no dependence on type of education, there emerges the largest proportion of the teacher sample (161 teachers in 198 with highest score frequency) in the stage of impact (2007). Due to the fact that it is specific with some characteristic features, it is possible to state that 161 teachers in the sample very strongly agree to the utterance revealing their uncertainty and doubts if they are sure to meet demands arising from the phenomenon of change. In other words, these 161 teachers in 2007 very strongly agreed to sayings such as: *"I am concerned for what role I am to play in the change"* and *"I am concerned for what main consequences of FEPs will emerge for pupils"*. The inter-survey comparison (2007 vs. 2015) shows that the stage of impact stays dominant though with weaker intensity (difference between the first and the second highest score is only 8 points/teachers, 36 teachers (2007) vs. 28 teachers (2015).

The second highest score in 2007 relates to the stage of awareness (28 teachers in the sample). On the grounds of specific features of the stage and from the number of teachers being self-identified with this zero concern stage emerges a statement that: 28 teachers know and are aware of that the change exists, but that it is not in the centre of their attention, and that they do not participate. The inter-survey comparison (2007 vs. 2015) shows a shift; the survey of 2015 shows the second highest score (28 teachers) observable in the stage of personal dimension.

In each of the groups and teacher types separately/independently, as well as in the sample of 2007 and of 2015 totally, relative frequencies and values of competency-oriented concern values are compared and presented in Table 5. Relative frequencies are presented in Figure 2.

Table 5. Czech teachers´ competency-oriented concern (COC) from the perspective of CBAM stages of concern: 2007 vs. 2015 comparison

CBAM-based stages of concern

	Awareness		Personal dimension		Impact		Management and transmission		Total
	COC (Mean)	Agree (scale values 5 – 7)	COC (Mean)	Agree (scale values 5 – 7)	COC (Mean)	Agree (scale values 5 – 7)	COC (Mean)	Agree (scale values 5 – 7)	COC (Mean)
Basic schools (2007)	4.19	41.52 %	5.78	83.34 %	5.82	84.38 %	5.02	31.69 %	5.20
Grammar schools (2007)	4.67	40.00 %	5.54	74.92 %	6.19	87.62 %	4.87	28.09 %	5.32
Secondary vocational training (2007)	4.64	56.86 %	5.60	78.34 %	5.93	83.25 %	4.51	26.81 %	5.17
Sample 2007	4.46	48.43 %	5.64	78.82 %	5.96	84.67 %	3.41	28.62 %	4.87
Sample 2015	3.78	32.55 %	5.18	72.03 %	5.46	76.9 %	3.89	39.15 %	4.58

Table 5 contains data relevant for the comparison of competency-oriented concern values as well as proportions of the CBAM-based stages of concern in the surveys of 2007 and 2015. The largest proportion of respondents in the survey of 2007 show their identification with statements typical for stages of personal dimension and impact (relative frequencies range between 74.92 % and 87.62 % teachers of grammar schools). Teachers at secondary vocational training (2007) are specific with the exceptionally higher proportion of teachers in the stage of awareness. The lowest proportion of the 2007 sample in all monitored subgroups (teachers of basic education, grammar schools, secondary vocational training) is observable in the concern stage of management and transmission (the lowest proportion of all subgroups apparent among teachers of secondary vocational training 26.81 % (compare: 28.09 % grammar school teachers, 31.69 % basic school teachers). As far as the inter-survey comparison 2007 vs. 2015 is concerned, all of the CBAM-based stages of concern are represented by lower proportions with one exception: the stage of management with evident increase by 10.29 %. Figure 2 illustrates distribution of CBAM-based stages of concern in both surveys.

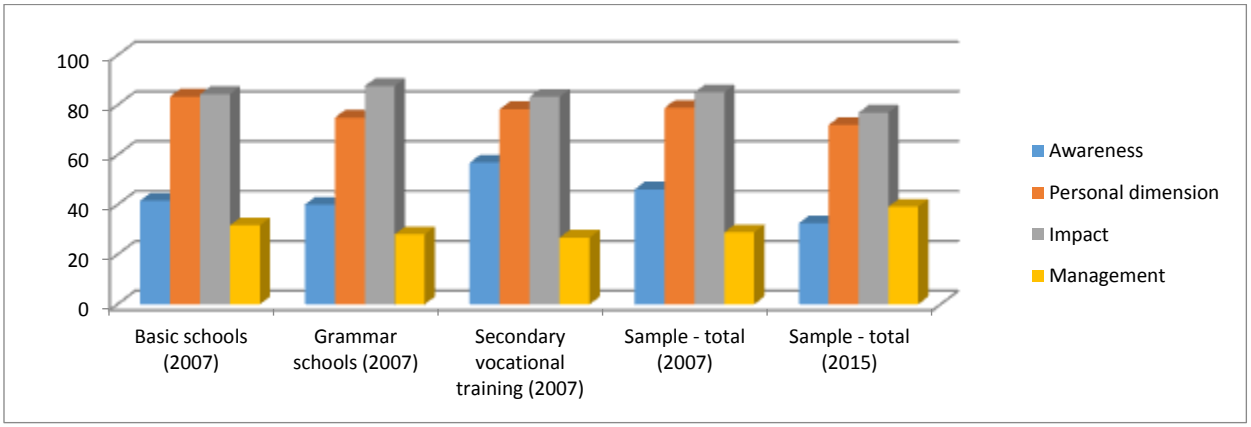

Fig. 2 Distribution of CBAM stages of concern: comparison 2007 vs. 2015 (%)

As to competency-oriented concern values (Table 5), from the perspective of the CBAM-based stages, there is observable decreasing tendency between the years 2007 (value: 4.87) and 2015 (value: 4.58). On the contrary, it is necessary to highlight that despite quite low values (on the scale 1 – 7), both of the compared values are in the

pro-innovative part of the scale points. Nonetheless, after a lapse of time, increasing tendency to ambivalence or resistance is apparent.

9. Conclusion

Flexibility, adequate openness towards changes in harmony with respect for continuity and traditions seem to have become a part of new value system necessary and specific for the teaching profession and modern ´dream teachers´. Significant findings used in the field of pro-innovative involvement of Czech teachers also result from the survey by Světlík (2004) with the aim to trace the influence of cultural dimensions and values upon the Czech teacher. Attitudes - inner components of subjective evaluation represent one of the key elements/aspects of school culture. Teachers´ subjective evaluation represents the essence of Concerns Based Adoption Model (CBAM) that is used as a kind of methodological inspiration for the questionnaire and CBAM-based stages of concern.

The main aim of this paper was to present selected findings based on comparing two surveys of 2007 and 2015. Empirical data collected in both surveys (2007, 2015) provide an insight into the issue of how and to what extent secondary education teachers´ attitudes to curricular reform developed in Královéhradecký region after a lapse of time. The paper focuses on teachers´ competency-oriented concern from the perspective of professional needs and CBAM-based stages of concern. As to some main conclusive statements summarizing the surveys it is necessary to emphasize that the inter-survey comparison (2007 vs. 2015) of the total samples results in evidently decreased proportions of teachers who experience the monitored professional needs of demonstrations/examples, skills training as well as help with workload. From the perspective of competency-oriented concern values, in all of the subgroups of the survey 2007 we can see a slight tendency to resist the contemporary curricular reform. Based on competency-oriented concern values below 4.00 (central, neutral value) from the perspective of professional needs in the survey of 2015, it is possible to confirm a sustainable and slightly deeper tendency to resistance. The same conclusion is supported by relevant values from the perspective of items saturating CBAM-based stages of concern as well as by extremely low response rates. Both of the surveys provide more data, results and issues to be not only compared and analyzed but also verified and to become subject of further exploration.

References

Ellsworth, J.B. (2001). *Surviving Change.* Syracuse – New York: Syracuse University.

Fullan, M. (2001). *The New Meaning of Educational Change*. New York: Teachers Press.

Hall, G. E., Hord, S. M. (1987). *Change in Schools*. New York: State University of New York Press.

Havelock, R. G., Zlotolow, S. (1995). *The Change Agent´s Guide.* New Jersey: Englewood Cliffs.

Houška, J., Tlustý, V. (1977). *Společnost, stát a jednotlivec*. Praha: SPN.

Janík, T. (2013). Od reformy kurikula k produktivní kultuře vyučování a učení. *Pedagogická orientace*, 2013, roč.
23, č. 5, pp. 634 – 663.

Kelly, A. V. (2005). *The Curriculum: Theory and Practice*. London: SAGE.

Krech, D., Crutchfield, R., Ballachey, E. L. (1968). *Človek v spoločnosti: Základy sociálnej psychologie.* Bratislava:
SPN.

Lašek, J. (2003). *Kapitoly ze sociální psychologie*. Hradec Králové: Gaudeamus.

MŠMT. (2001). *Národní program rozvoje vzdělávání v České republice – Bílá kniha*. Praha:
Tauris.

Rogers, E. M. (1969). *Diffusion of Innovations*. Toronto: Collier-Macmillan.

Shotsberger, P. G., Crawford, A. R. (1999). On the Elusive Nature of Measuring Teacher Change: An Examination of the Stages of Concern Questionnaire. Ev*aluation and Research in Education.* Vol. 13, No. 1.

Světlík, J. (2004). Vliv kulturních dimenzí na řízení školy. *Pedagogická orientace* 2004, č. 4, pp. 31-45.

Vrabcová, D. (2007). *Učitel jako inovační činitel ve školství (Dissertation thesis)*. Olomouc: Pedagogická fakulta Univerzity Palackého.

Vrabcová, D. (2007). Proinovační angažovanost českého učitele v empirickém šetření. *Svět výchovy a vzdělávání v reflexi současného pedagogického výzkumu*. České Budějovice: Pedagogická fakulta JU.

Vrabcová, D. (2015). Contemporary school curricular reform in the Czech Republic as a type of educational change: descriptive and comparative view of selected process issues and milestones. *INTED2015 Proceedings* (pp. 240, 247. Madrid, Inted.