

Covid19 Impact on Information Channels Choosing Preference During The Self-Study of Teachers in The Gender Context*

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Abstract

This article is focused on the analysis of information channels choosing preference during the self-study of teachers in the gender context for the decisive period from March to June 2020. Schools were closed worldwide in this period with the emphasis on communication with pupils via electronic platforms on the internet. Teachers were assimilated to completely new roles, within one week they had to adapt to this arisen situation and change the education in the sense of realised digital competence. The goal of the article is to find the scale of preferred information channels during the self-study of teachers and to compare the difference in preparations at men and women teachers in the three-month period mentioned above. We also wanted to know how the preference was changing according to the extent of the school residence where the online lessons were realised.

Keywords: COVID19, distant education, evaluation of teachers, pedagogy, self-study preference of teachers.

Introduction

The Czech Republic is the cradle of the tradition of education of the broadest levels of population. We file 94 % of people with higher secondary education in the age group of 25 – 64 years. As it can be seen in Figure 1, there are 150 thousand teachers (more precisely 150 592 in the period of January – February 2019) working in the level of pre-school, elementary and high schools in the Czech school system. According to [1] there is one quarter of men from this ground in the working process (more precisely 25,39 % in the period of January – February 2019). This situation is very imbalanced in pre-school education. Only a half percent of teachers are men (more precisely 0,68 % in the period of January to February 2019). Every tenth teacher is a man at secondary schools (more precisely

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11,09 % men work at secondary schools in the period of January – February 2019). The older students study at schools, the more men work in the teaching staff. Nearly a third of men teachers work at lower-secondary schools (more precisely 31,90 % in the period of January – February 2019). High schools and colleges are already gender-balanced half on half (more precisely 49,94 % men teachers work here in the period of January – February 2019).

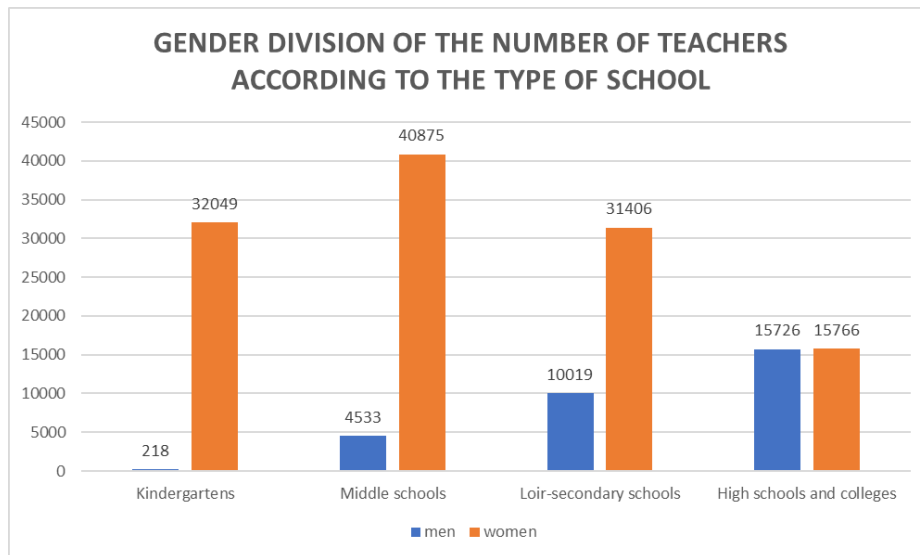


Fig. 1: Gender division of the number of teachers according to the type of school

(Source: Own processing)

The state of ratio between female and male teachers in the Czech Republic is not rare at all on the global scale which illustrates Figure 2. In the theory of gender roles according to [2] there must also exist mechanisms of ways of behaviour in the question of preparations on work and self-study that are also expected from a person based on the gender. They blend with gender stereotypes and also participate on their creation. They can vary even in terms of one generation unlike the gender concept, that changes slowly. According to [3], [4], [5] the research points to the fact that the number of women in science, technology, mathematics and engineering (STEM) degrees are lower than the number of men. In addition, it has negative implication for closing gender gap earning because the STEM fields pay more than humanities and social fields, where women are majority Some authors consider the field of study choice as a relevant factor in the gender pay gap determination among graduates.

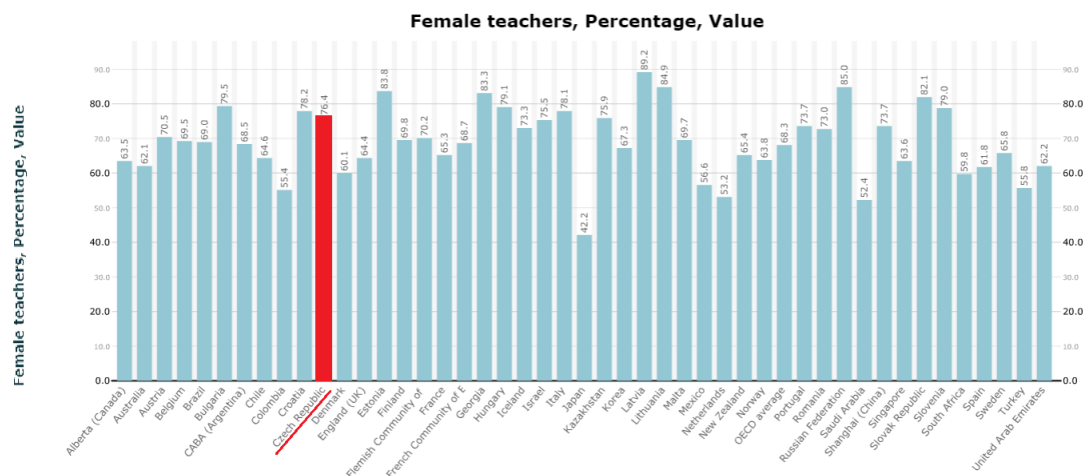


Fig. 2: Comparison of the gender balance in the pedagogical sphere between the Czech Republic and other countries [6]

The duty of further education when teachers renew, solidify and complete their qualification during their teaching activities is set by a school law that defines:

Forms of further education in the Czech Republic. Further education is realised:

- institutionally at universities
- institutionally in the facilities of further education of teachers (next marked in text and graphs as **FET**)
- **via self-study** [7]

There are 12 workdays set aside a year for self-study with varied selection of programmes and focuses for every teacher. This extent of time off corresponds to the time before breaking out of the COVID19 pandemic. During the distant education teachers had very little time for self-study of necessary technical competence. They also had limited resources when the state of emergency was declared. This period is often called the “big jump” period in the Czech Republic. Even conservative and elder teachers were forced to learn to work with new modern technologies as implements of their teaching communication with students and parents.

Methodology

The nationwide research to acquire necessary data was realised from March to June 2020 via the quantitative method of data collection with the participation of 211 experienced teachers (see Table 1). The whole research on the topic COVID19 in the school system for period mentioned above contained 42 questions and the recovery rate was 24 %. We choose the data relating to the objective of the contribution to this conference from the measured data.

The main objective of the research survey was to find the changes in preference in the question of self-study at female and male teacher before and after breaking out of the COVID19 pandemic.

The research question is: Which offered and used technologies and method do teachers see as great during the COVID19 pandemic, which were neglected and unused on the contrary?

We are going to reach the objective specified above via solving further particular problem marked **A**.

Problem A: Are there changes in preference of acquiring new knowledge and education trends in the area of using computers and multimedia in teaching before and after closing schools.

H1: The part of active self-study with a predominance of online publications, webinars, educational videos on YouTube etc. increased of one third among teachers in the period of COVID19 pandemic.

H2: There are differences in preference of using resources for self-study and teaching between male and female teachers.

H3: There is not a significant difference in preference of using resources for self-study and teaching between teachers from municipal and village schools.

The summary of the structure of the research sample is evident from following Table 1.

Table 1: demographic characteristics

Variables	Frequency	Percent	Variables	Frequency	Percent
Gender			Age Groups		
Male	34	15	18-29	11	5
Female	187	85	30-39	40	18
Magnitude of municipality where the school is			40-49	86	39
A municipality up to 2 thousand people	28	13	50-59	74	33
Small town 2001-10 000	74	33	60+	10	5
Middle 10 001-100 000	60	27	Type of school		
Big above 100 thousand	39	18	Elementary (1-5. grade)	97	44
Prague	20	9	Elementary (6-9. grade)	59	27
Teaching practice length (in years)			Elementary - special	4	2
0-2	14	6	Children's home with a school	1	0
3-5	16	7	A grammar school	12	5
5-10	33	15	Technical secondary school	31	14
10-15	29	13	Vocational school	5	2
15+	129	58	Another type of school	12	5
Education					
Complete University	218	98			
High school	3	2			

As visible in Table 1 shown below: Demographic characteristics, nearly 60 % respondents are teachers with experience of more than 15 years, only 6 % of the statistical unit can be considered as “beginning teachers”.

Results

Problem A results: H1: The part of active self-study with a predominance of online publications, webinars, educational videos on YouTube etc. increased of one third among teachers in the period of COVID19 pandemic.

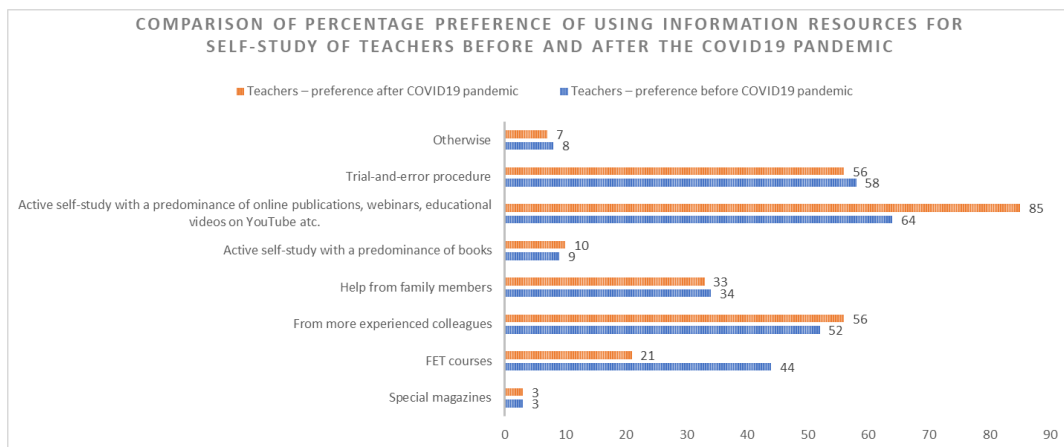


Fig. 3: Comparison of percentage preference of using information resources for self-study of teachers before and after the COVID19 pandemic

(Source: Own processing)

Hypothesis H1 confirmed: 64 % respondents used covered opportunity of active study with a predominance of online publications, webinars and educational videos before breaking out of COVID19. During the online education it was 85 % which is a significant increase of 33,33 %. Preference in other areas like “trial-and-error” method, help from more experienced colleagues or family members remained the same. Organized accredited courses of FET recorded great fall of 23 %.

H2: There are differences in preference of using resources for self-study and teaching between male and female teachers.

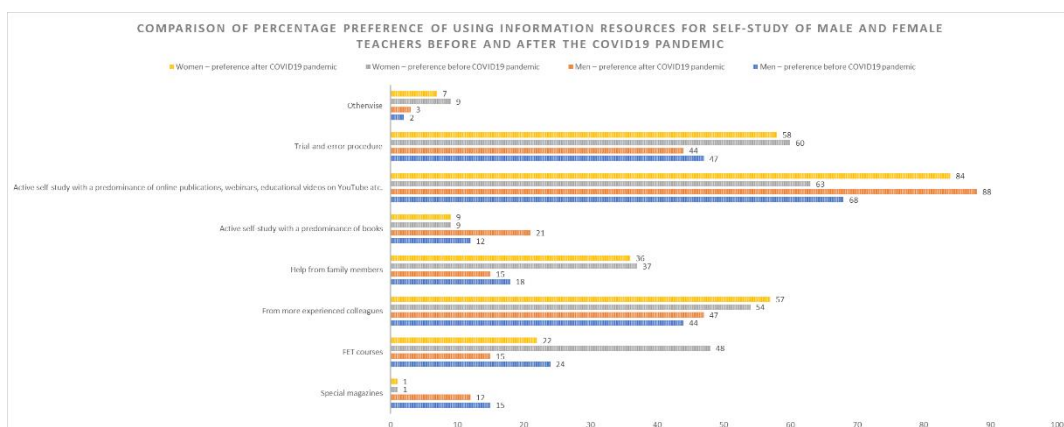


Fig. 4: Comparison of percentage preference of using information resources for self-study of male and female teachers before and after the COVID19 pandemic

(Source: Own processing)

Hypothesis H2 confirmed: Respondents answering these questions could use more answers to cover the area of their preferential interest of self-study more complexly. Male teachers use reading of special magazines more for their professional development in the area of new knowledge, educational trends, using computers and multimedia in lessons. We can see further differences in popularity of books for self-study. Male teachers started using the more during the period of COVID19 pandemic, it means it nearly doubled from 12 % to 21 %, on the contrary women stagnated on 9 %. Female teachers were more looking for support and advice in their families in this area. Female teachers used about three times more the “trial-and-error” method than male teachers.

H3: There is not a significant difference in preference of using resources for self-study and teaching between teachers from municipal and village schools.

The term “village” is obviously interpreted a little different in every country. In the Czech Republic we consider it a village when it is a township that has less than 2000 inhabitants.

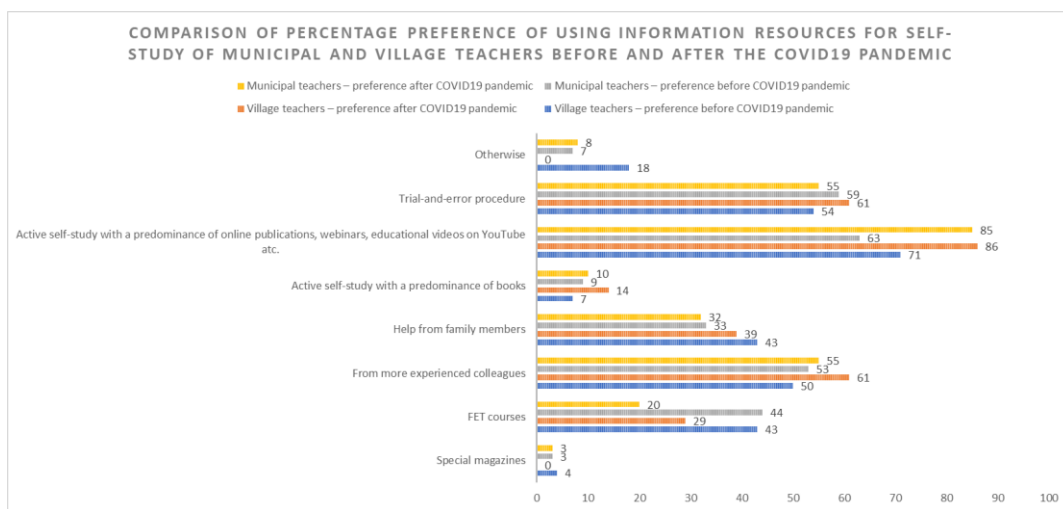


Fig. 5: Comparison of percentage preference of using information resources for self-study of municipal and village teachers before and after the COVID19 pandemic

(Source: Own processing)

Hypothesis H3 confirmed: We found that Czech village teachers have also great connectivity in terms of so many discussed differences between “villages” and “cities”. The size of the facility (and particular absence of associated services) does not influence the way of preparation of teachers and their preference of choosing among particular types of self-study.

Conclusions

The continuity of education is one of the most important criteria of successful education. The transformation from contact education to online platform was realised successfully in the Czech Republic thanks to the change of preference of active self-study of teachers who were forced to change their usual forms and methods of teaching and upgrade their digital competence rapidly. The analysis of comparison of resource selection during self-study of teachers is also interesting according to gender and size of facilities. The results show that there are significant changes in preference of acquiring new knowledge and education trends in the area of using computers and multimedia in teaching before and after closing schools. The part of active self-study with a predominance of webinars, online publications, educational videos on YouTube etc. increased of one third among teachers in the period of COVID19 pandemic. Male teachers used to read special magazines and books more for their professional development in the area of new knowledge, educational trends, using computers and

multimedia in lessons. Female teachers were more looking for support and advice in their families in this area. Female teachers used about three times more the “trial-and-error” method than male teachers. Research shows here that active predominance of self-study using online publications and webinars creates the same conditions for education of teachers thanks to good connectivity in villages and it eliminates their preceding disadvantages related to the absence (or little variety) of available educational services in their surroundings. The closure of educational institutions due to preventive measures against the spread of COVID-19 has affected the education, well-being, and functioning of all parties involved in educational systems in the world.

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