

Final theses in the field of Secondary School Teacher Training for Specialized Subjects

Analysis

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Abstract

The analysis of diploma theses in the field of Secondary School Teacher Training for Specialized Subjects at Masaryk University in Brno (Czech Republic) focuses on three areas. The first criterion is the chosen topic of the final theses. In order to aggregate topics, eight thematic groups were identified. Each topic of the thesis can be divided into one of these eight groups. There is also monitored the development of topic selection in time, which shows that the most frequently chosen group of topics in 2010 is a different thematic group than in 2018. The second area of analysis is the research methods used, their development in time and their representation in thematic groups. The third area analyzed were evaluations by both the supervisors and the opponents. A total of 454 diploma theses submitted between 2010 and 2018 were analyzed.

Keywords:

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1 Introduction

Future secondary school teachers of vocational subjects have a diverse focus. Teaching disciplines is characterized by differences in individual subjects areas. According to Slavík, Janík, Najvar and Knecht (2017), this problem results in formalism during teacher training. In the education of future teachers, the gap between theory and practice is widened and there is no improvement in the quality of teaching through teachers. Turek (2014) describes the university study of future teachers aimed at obtaining the required qualification of master, respectively bachelor in Slovakia as low quality. This is explained by the fact that university teacher training focuses more on memorizing information from pedagogy, psychology and didactics rather than acquiring teaching competencies. The situation in the Czech Republic is likely to be very similar to that in Slovakia.

This analysis of diploma theses will be followed by further examination of theses whose topic is the creation of teaching materials. The aim will be to answer the question whether the created teaching materials are effectively usable in real education that means what their didactic equipment is (Průcha, 1998). Whether final theses are merely a formal necessity to achieve the required level of education, or at the same time serve to enrich and improve the quality of teaching, school, the whole field of study.

2 Topic of the final theses

In the introduction, it has already been indicated that the specialization of future secondary school teachers is very diverse. Similarly, their thesis topics are diverse. Nevertheless, 8 thematic groups were identified during their analysis, see table 1 below. Each topic of the thesis can be divided into one of these eight groups.

Topic group name	Examples of thesis topics
Creation of teaching materials	Creation of worksheets, workbooks, processing cross-sectional

	topics such as environment, healthy lifestyle, financial literacy,...
Pupil's personality	Their motivation to learn, level of knowledge, hygiene in the teaching process, psychohygiene, substance abuse prevention, educational problems,...
Didactic resources in teaching	Material provision of teaching, innovation in didactic technology, teaching aids, means of production, teaching methods and organizational forms,...
Out-of-school and further education	Leisure activities, in-service training,...
Economics and management	Customer satisfaction in education, school or education promotion, school recruitment activities, employability of graduates on the labor market, relations between demand and supply,...
Personality of the teacher	Motivation for the profession by the teacher, experience of teachers, didactic and pedagogical knowledge,...
Pedagogical documents	Analysis, comparison of FEPs and SEPs, regional action plans, innovation of the profile component of education in a particular field,...
Occupational health and safety	Work safety at secondary vocational schools, work injuries and occupational diseases,...

Table 1: Thematic groups of final theses (Straková, 2019)

Between 2010 and 2018, the most frequently chosen topic of the diploma thesis was the pupil's personality (30% of students). The second most frequently chosen topic was related to the creation of teaching materials (25% of students). The third most frequently chosen topic of the thesis was chosen by significantly fewer students (14% of students) and it was a topic focused on didactic resources in education. Other students selected topics of work were gradually decreasing according to decreasing frequency related to extracurricular and further education (12% of students), economics and management in education (10% of students), teacher personality (7% of students), pedagogical documents (1% students) and health and safety (1% of students). Figures 1 shows the percentage of diploma theses from individual thematic groups in the total number of 454 of all analyzed theses.

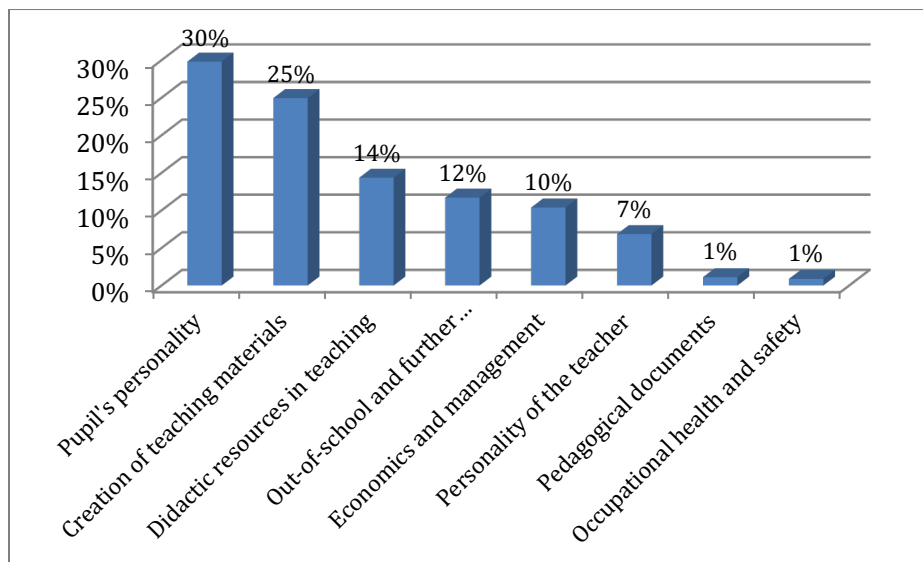


Fig. 1: The percentage of diploma theses in individual thematic groups between 2010 and 2018

2.1 The development of topic selection in time

The choice of topics for diploma theses differed from year to year, see figure 2. Between 2010 and 2014 students in their diploma theses were focused on the topics concerning the pupil's personality with a significant predominance over the other thematic groups (2010 – 47 % students, 2011 - 38 % students, 2012 – 23 % students, 2013 – 41 % students, 2014 – 67 % students). Starting in 2015 and until 2018, the choice of

topics has changed. Students most often started to choose the topics of their diploma theses related to the creation of various teaching materials (2015 – 32 % students, 2016 – 39 % students, 2017 – 31 % students, 2018 – 47 % students). The issue of pupil's personality was represented in second place in the frequency of elected topics.

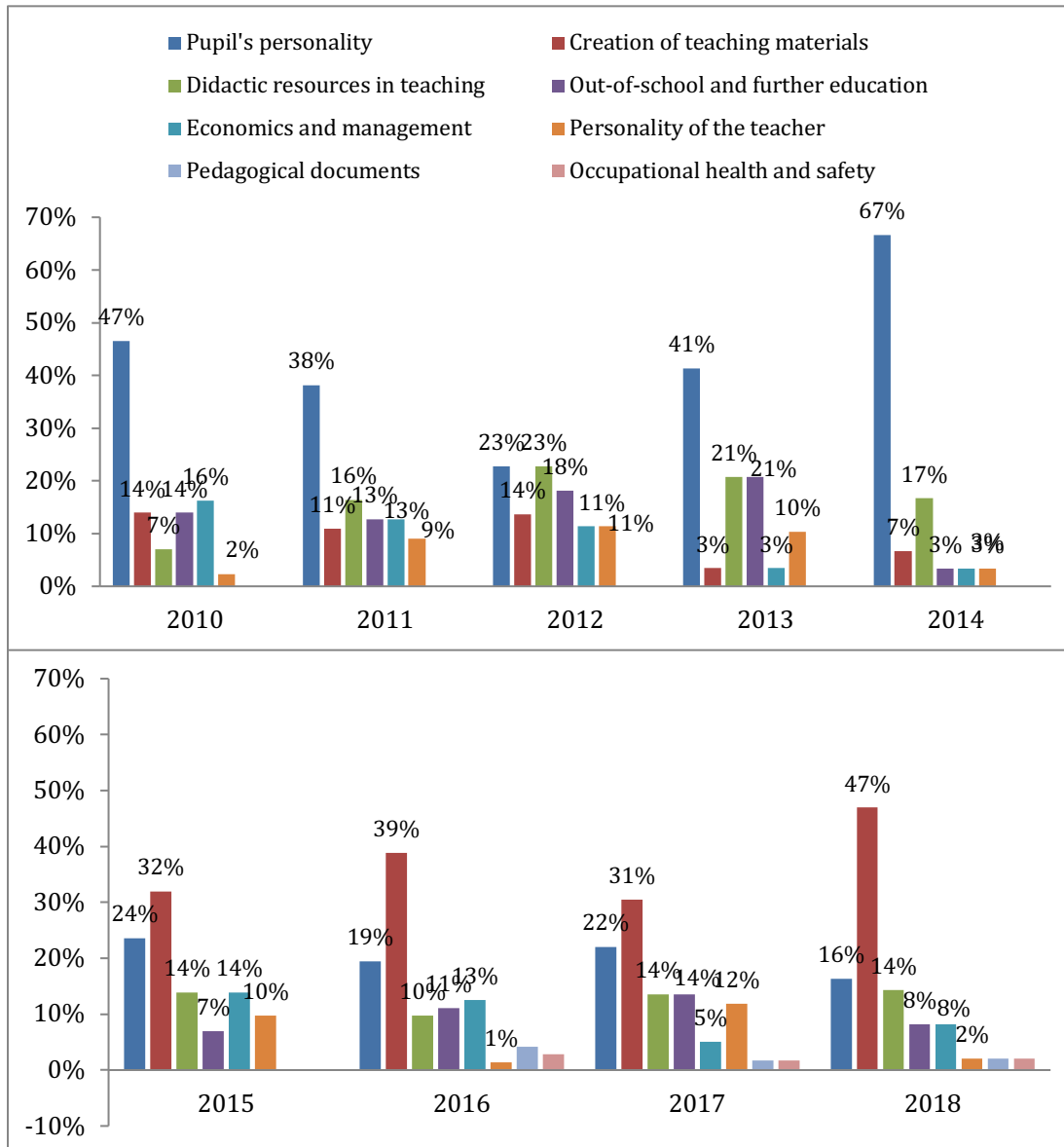


Fig. 2: The development of topic selection in time

3 Research methods in final theses

The research methods used by students in their diploma theses are shown in figure 3. The most frequent representation in the analyzed thesis is a questionnaire survey (61 % of students). This was used either alone or in combination with other research methods. Quite often, though significantly less than the questionnaires, document analysis (24 % of students) and interview (13 % of students) were used. Very rarely the student chose observation methods, case reports and experiment.

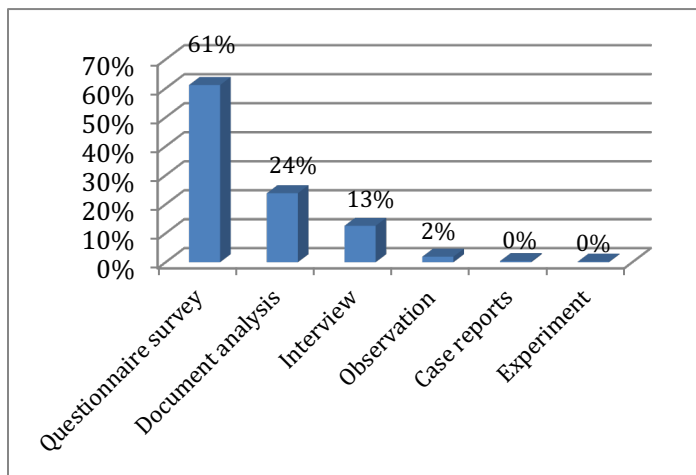


Fig. 3: The research methods in final theses

3.1 The development in time and the representation in thematic groups

The dominance of the questionnaire survey method was found in all monitored years. In each year more than a half of all diploma theses contained a research method questionnaire survey. Between 2010 and 2016, the second most frequently chosen research method was document analysis and the third interview, with an exception in 2014. In the last two monitored years 2017, 2018, the ranking in the second and third place swapped. The second most frequently chosen research method was observation and the third analysis of documents.

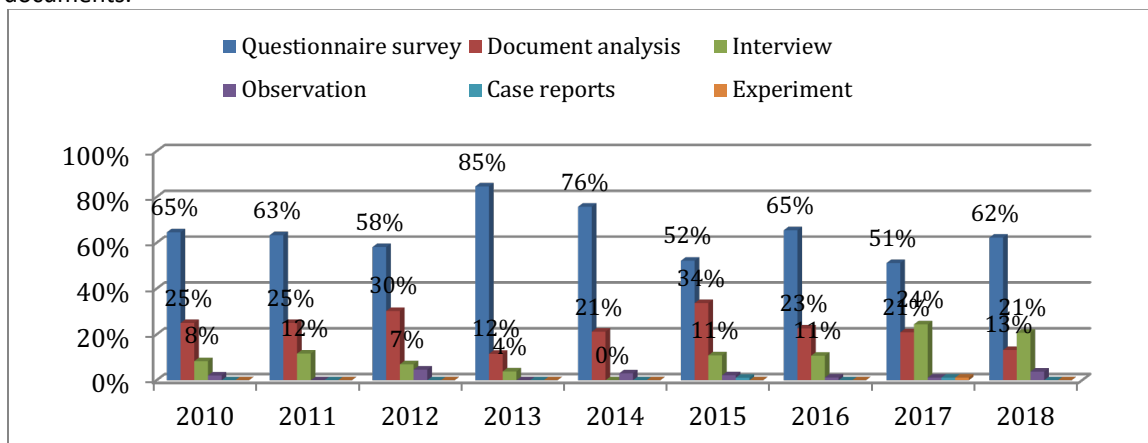


Fig. 4: The development of research methods in time

For completeness it is also mentioned a figure 5 which shows the number of the research methods in various subject groups. Also there a questionnaire survey dominates in all thematic groups, with the analysis of documents at second place and the interview at the third place. Only in the thematic group Teacher Personality, observation is more often used than document analysis, but the questionnaire survey is also chosen most often.

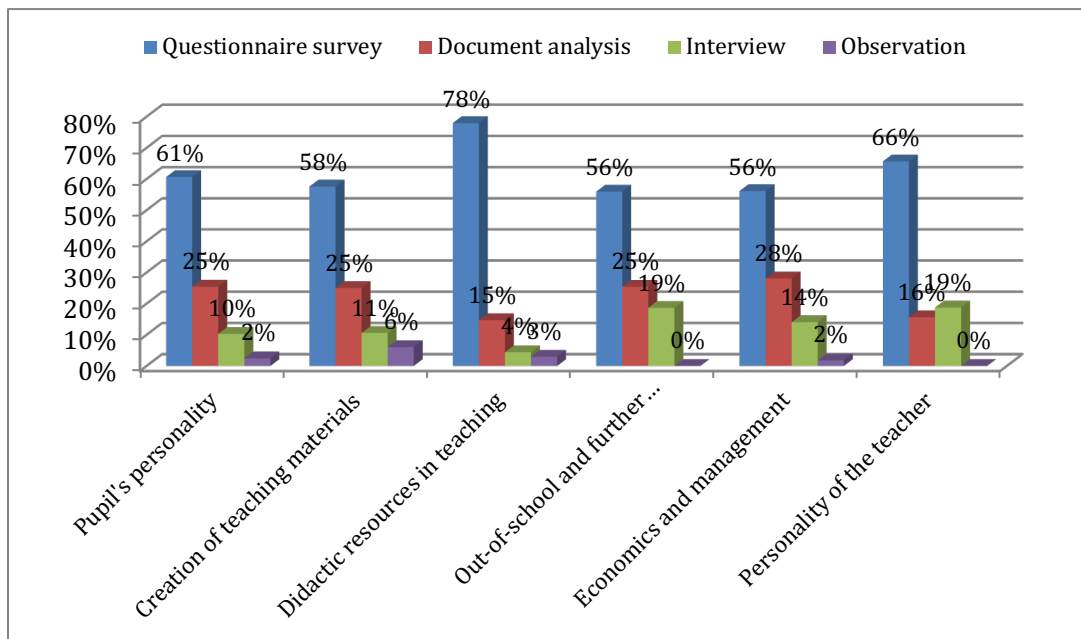


Fig. 5: The representation of research methods in thematic groups

4 The evaluation of final theses

The last area of this initial analysis of final theses is the evaluation given by the supervisor and the opponent. Figure 6 shows numbers of marks A, B, C, D, E and F which were given by supervisors and opponents in total.

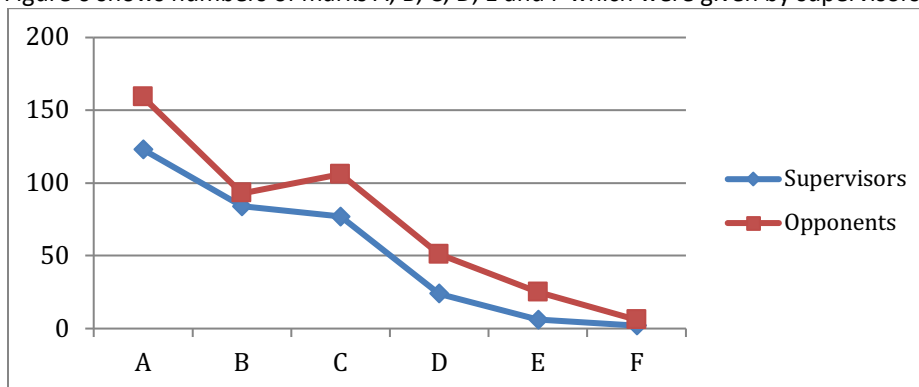


Fig. 6: The evaluation given by supervisors and opponents

Figure 7 shows the evaluation of the final theses by their supervisors between 2012 and 2018 and figure 8 shows the evaluation of the opponents. If we look at evaluations of the final theses with the mark A (excellent work), the trend of their awarding between 2012 and 2016 is the same for supervisors and opponents. In 2012, 2013 and 2014, both supervisors and opponents graded more and more jobs with an A mark. In 2015 there was a fall and significantly fewer jobs were rated as excellent, but in 2016 the number of excellent jobs increased again.

In 2017 the trend in the awarding final theses with an A mark began to differ between supervisors and opponents. In 2017 and 2018, the opponents became stricter. The number of excellent works stagnated in 2017 and started to decline in 2018. While an increasing trend in supervisors evaluation has been continuing since 2015 and – (50 % of diploma theses were rated with an A mark).

The fact that the opponents have become stricter than the leaders in the last two years (2017, 2018) is also evidenced by data on the awarded with an F mark (means unsatisfactory final theses). Opponents do not recommend these years to defend more final theses than supervisors. Or we can say that they did not recommend some final thesis for the defense, which, on the other hand, were allowed for the defense by supervisors.

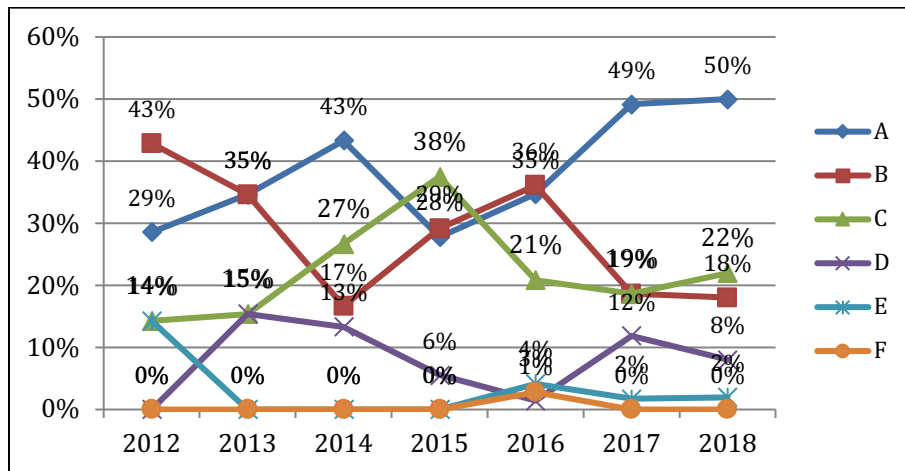


Fig. 7: The evaluation given by supervisors

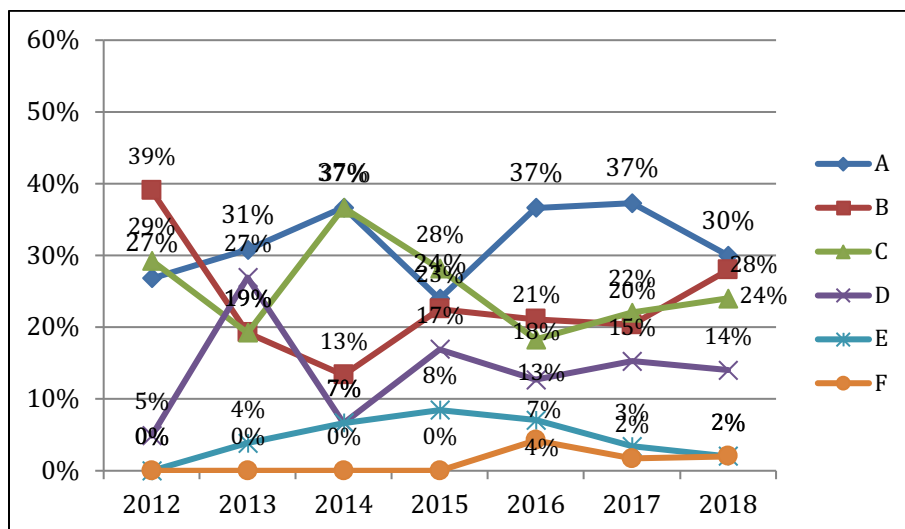


Fig. 8: The evaluation given by opponents

5 Discussion and conclusion

The analysis shows that since 2015 the most frequent diploma theses topic of future secondary school teachers has been the creation of teaching materials. This topic can be expected to be useful in teaching practice. Whether the created teaching materials are effectively usable in real education will be the goal of further research.

The most frequently represented research method in all monitored years and in all identified thematic groups of diploma theses was a questionnaire survey. The questionnaire is the most commonly used research method in general. As Gavora (2000) says, this is due to a (seemingly) light construction, but all the more often the questionnaires are compiled incorrectly, inappropriately and sometimes incorrectly evaluated. For all research methods, their ability to be valid and reliable is essential. If a research tool is able to identify what it should have and still with sufficient accuracy should be considered by supervisors and opponents in evaluation of methodology. The evaluation of methodology is reflected in the overall proposed evaluation.

The quality of the final theses, which is assessed by the proposed supervisor's evaluations, is constantly increasing from 2015. But the proposed opponent's evaluations of the final theses do not fully correspond with this. In the last two monitored years, opponents rated less final theses with the mark A and more final thesis with the F mark than supervisors did. From the point of view of opponents and their evaluations, it could be concluded that in 2017 and 2018 the quality of diploma theses of future secondary school teachers decreased.

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