

# The Impact of Teacher Shortages on the Quality of Education and Training at the Secondary Vocational School of Transport, Kvačalova 20, 821 08 Bratislava

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## Abstract

The shortage of qualified teaching staff has become a pressing issue within regional education in Slovakia, particularly impacting vocational institutions. This study examines the personnel challenges faced by the Secondary Vocational School of Transport in Bratislava, highlighting the persistent deficit in skilled teachers despite over 12,000 graduates from pedagogical faculties between 2021 and 2024. Many secondary vocational schools struggle to attract graduates, leading to approximately 890 unfilled teaching positions in the Bratislava Region as of July 2024. The shortage is particularly severe in vocational education, where specific qualifications are required, often unavailable through traditional pedagogical training. Consequently, schools are compelled to hire professionals from industry. Low teacher salaries and the predominance of retirees applying for teaching roles exacerbate the issue, affecting the age distribution and overall suitability of staff. These factors collectively risk undermining the quality of vocational education and training.

**Keywords:** Quality of Vocational Education, Shortage of Teaching Staff, Real Age Structure of Teaching Staff, Impact of Shortage of Teaching Staff on Quality

## 1 Introduction

The lack of qualified teaching staff is currently an acute problem of regional education in the Slovak Republic. The purpose of this paper is to provide an insight into the current state of

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personnel provision of vocational education and training in the conditions of the Secondary Vocational School of Transport in Bratislava. Between 2021 and 2024, more than 12,000 graduates completed their studies at pedagogical faculties in Slovakia, but despite this number, Slovak education still faces a significant shortage of qualified and high-quality teachers. Several thousand students graduate from the faculties of education every year, yet secondary vocational schools have a shortage of job seekers from the ranks of graduates. According to the *edujob.sk* portal, as of 1st July 2024, there were approximately 890 unfilled teaching positions in the Bratislava Region. This issue is particularly pronounced in secondary vocational education, where schools face a severe shortage of specialists with specific qualifications. To ensure professional training and education in specialised fields—often not covered by pedagogical faculties—schools are increasingly compelled to recruit experts directly from industry. The second influencing factor is the salary of teachers, which does not provide a sufficient financial incentive in Slovakia. Persons of retirement age largely apply for the positions of teaching staff. This phenomenon significantly affects the age structure of the school's teaching staff. The lack of teachers can also lead to the hiring of employees who do not meet the personality requirements for the work of a teacher. The mentioned factors can negatively affect the overall quality of training and education.

## 2 The Structure of Teaching Staff at the Secondary Vocational School of Transport

The structure of the pedagogical staff of the Secondary Vocational School of Transport consists of teachers of general education subjects, teachers of specialised subjects, teachers of practical training and masters of professional training. The monitored sample consists of forty teaching employees of the school. According to Table 1, the average age is 54.27 years, the minimum age is 22 years, and the maximum age is 73 years, the structure of the age distribution is not uniform. Figure 1 shows the processed age structure according to age categories. The most dominant is the age category from 52 to 67 years old, consisting of seventeen employees, the category from 67 to 82 years old consists of seven employees, the prospective age group from 22 to 37 years old consists of eight employees, and the group from 37 to 52 years old also consists of eight employees.

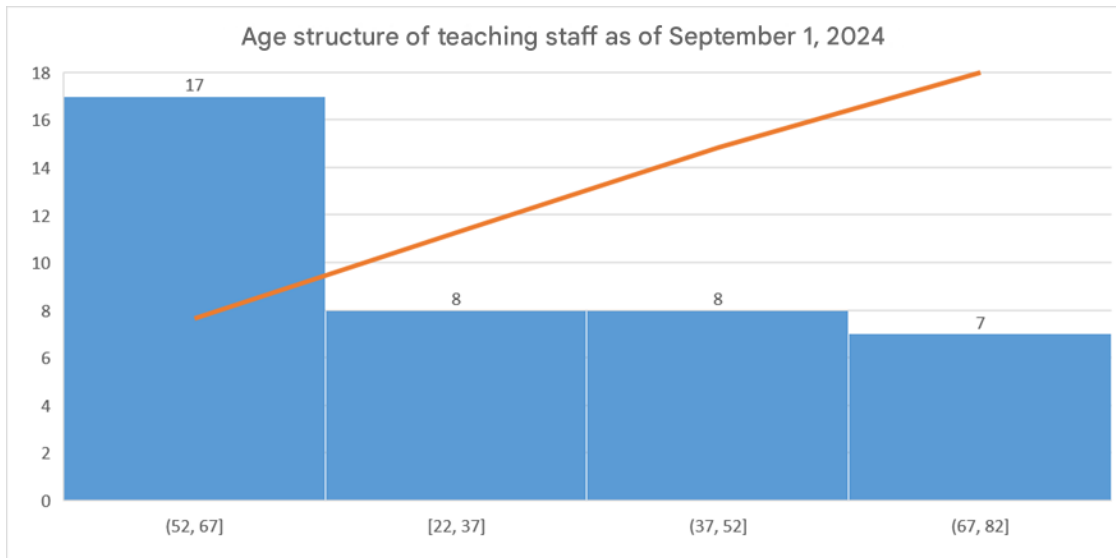


Figure 1: Graph of the age structure of the teaching staff of the school as of 1<sup>st</sup> September 2024.

Further in the survey, we monitor the length of employment on the same sample of forty employees as of 1st September 2024. Descriptive statistics of the sample with an average duration of 4.82 years at the school, a maximum of 38 years and a minimum of 1 year are recorded in Table 1, the distribution is not uniform. Figure 2 shows the proportional distribution of the duration of employment at the school: 1 to 3 years 55%, 3 to 10 years 32.5% and 10 to 40 years 7.5%.

Mean	4,825
Standard Error	1,219440551
Median	2
Mode	1
Standard Deviation	7,712419222
Sample Variance	59,48141026
Kurtosis	11,12160089
Skewness	3,262143371
Range	38
Minimum	1
Maximum	39
Sum	193
Count	40
Confidence Level(95,0%)	2,466551329

Table 1: Descriptive statistics of the employment time of teaching staff at the school as of 1st September 2024.

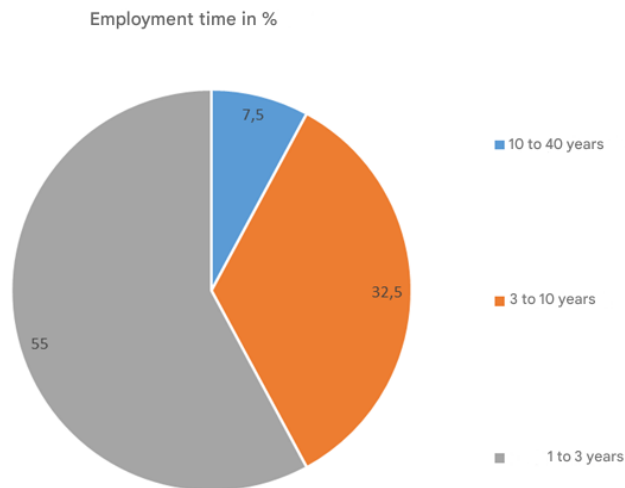


Figure 2: Graph of the percentage of time spent by teaching staff at the school as of 1st September 2024.

The percentage ratio of employees in retirement and pre-retirement age is 47.5%, the ratio for the age category between 50 and 59 years is 22.5%, and the other categories are evenly distributed, which does not correspond to the length of employment at the school. From the statistics mentioned, it follows that in the future there will be a serious problem with the staffing of professional training and education in the organization.

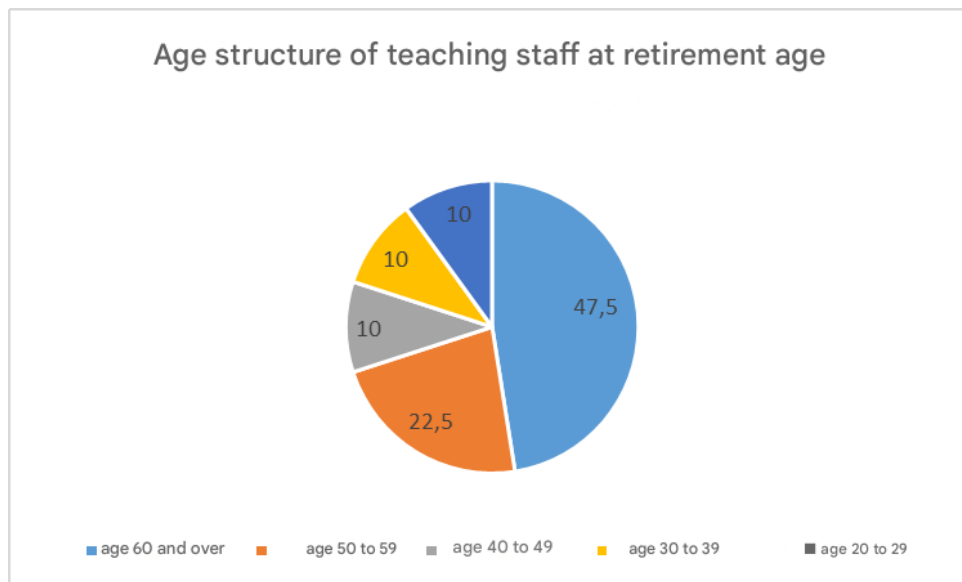


Figure 3: Graph of the percentage of teaching staff at the school in retirement and pre-retirement age as of 1st September 2024.

Further we focused on the qualitative observation of the behaviour of teaching staff in the monitored period of the school year 2023/2024. Through observation, we identified the listed deficiencies, which we segmented into 3 groups:

*1. Long-term employees*

Teachers who have been working at the school for a long time are loyal, often without significant absences, they have mastered administrative procedures, which is a benefit from an operational point of view. However, low motivation often leads them to reject innovative approaches, digital technologies or further education. Changing the usual procedures is difficult for them, which has a negative effect on the dynamics of teaching, they often feel professionally burnt out. In addition, many teachers do not use available methodological tools, which limit the effectiveness of their teaching and does not meet the requirements of the modern school system.

*2. Employees coming to the school after reaching retirement age*

Although retired teachers are experienced educators with authority and good relations with students, they are in many cases sceptical of modernising the approach to education. They are often not willing to perform additional duties, such as classroom management or supervision of students during breaks. The lack of computer literacy among some older employees also limits the introduction of innovations in the educational process and the necessary administrative activities. Health problems often lead to their long-term absence, which disrupts the flow of education and increases the pressure on the rest of the teaching staff.

*3. Graduates*

Graduates of pedagogic faculties come to a school full of plans, determination and ideas, but not all of them successfully complete the demanding adaptation process and persist in education as a quality young teacher. New graduates of pedagogic faculties who come to a school prove to be unprepared for the practical challenges of the teaching profession. Most of them do not know how to work with EduPage, which makes it difficult for them to adapt smoothly. Inadequate classroom management skills lead to problems in maintaining discipline, authority and student motivation.

	school year 2023/2024	school year 2022/2023	school year 2021/2022	school year 2020/2021
Faculty of Education UK	575	685	789	675
Faculty of Education PU	518	428	500	452
Faculty of Education KU	476	472	514	564
Faculty of Education UJS	192	168	202	194
Faculty of Education UKF	450	547	471	514
Faculty of Education UMB	332	372	348	374
Faculty of Education TTU	621	524	531	472

Table 2: Number of I. and II. degree graduates of pedagogical faculties of universities in the years 2020/2021-2023/2024.

### 3 Implications for the Quality of Education

Due to the acute shortage of personnel, the school management often finds itself in a situation where it accepts applicants with insufficient qualifications or unsuitable prerequisites. Lowering the quality criteria for hiring teaching staff leads to an increased volume of work at the school management level and more intensive monitoring and solving of problem situations. At the same time, teachers are aware of the lack of employees, which in some cases leads to a weakening of work commitment and long-term sick leaves.

The poor quality of employees has negative consequences not only on the pedagogical process, but also on workplace relations. Over the course of three years, we noted the following phenomena:

- Inappropriate communication of school teaching staff towards students and parents via social networks. Spreading information with inappropriate content and manner, including sending inappropriate photographs.
- Inappropriate behaviour of teaching staff towards students in intimate and sexual topics, including sending photographs with intimate content.
- Inability of the teaching staff to implement the educational process.
- Manifestations of verbal and non-verbal attacks against students.
- Inappropriate clothing and insufficient hygiene of teaching staff.
- Manifestations of intolerance towards students of a certain social group and discriminatory attitudes towards students from Ukraine.
- Solving personal problems, private matters of school employees and spreading misinformation and lies during classes.

These cases clearly illustrate that the quality of employees has a direct impact not only on vocational education and training, but also on the overall atmosphere and culture in schools. The absence of basic ethical standards of behaviour is apparently a global problem, as it occurs in media, politics, etc. At least minimal acceptable personality criteria for an employee should be required upon completion of formal pedagogical education.

## 4 Recommendations for Improving the Training and Hiring of Teachers

The Secondary Vocational School of Transport, like other educational institutions, faces an urgent need to increase the number of qualified employees. Ignoring this problem can seriously jeopardize the functioning of the school system.

Currently, employees of formal educational institutions are significantly overloaded, as they are forced to perform their work tasks in an excessive amount and under conditions of increased psychological stress. The situation is further complicated by frequent substitutions, excessive working hours and increased pressure from some parents. Based on the above facts, we recommend the following steps to increase the quality of teaching staff and professional training:

- More intensive and higher-quality preparation during university studies: Improve educational programs at pedagogical faculties with an emphasis on practical skills and the ability to work with technologies.
- Introduction of talent tests in communication: To verify the abilities of applicants for the study of pedagogy in the field of interpersonal communication.
- Introduction of subjects such as rhetoric and voice exercises: Provide students with the basic prerequisites for authoritative and effective communication with the class.
- Long-term teaching practice during studies: Ensure that students gain enough experience and better adapt to the real conditions of the school environment.
- High-quality teaching of school software, e.g. EduPage: Ensure that new teachers master basic technical tools for teaching management and communication with students.
- Psychological tests for school employees: To address not only the pedagogical but also the personal maturity of employees.
- Education in the field of appearance, hygiene and appropriate dressing.
- Fair financial evaluation based on the quality of work: Consider differentiated remuneration of teachers according to performance and approach, not only according to the number of years employed.

- Code of ethics for school employees: Establish clear ethical rules and carry out regular monitoring of activities on social networks.

These measures can help enhance the quality of education in vocational schools while fostering a safe and motivating environment for students. The school environment should primarily serve as a place where students acquire knowledge and develop personally—all personnel and systemic measures should be aligned with this objective.

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