Students in Vocational Teacher Training in Hungary, considering Career Socialization and Career Motivation

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Abstract: *The number of participants in vocational teacher education and training has decreased significantly in Hungary, as a result of the Bologna education structure. There are few training places, a small number of students and mostly part-time training. At the same time, demographic trends (mainly ageing) and high levels of early school-leaving among vocational teachers, are leading to an increasing shortage of vocational teachers, in vocational education and training in Hungary. While the issue of career retention is also crucial for VET teacher educators. This paper presents an analysis of career socialisation and career motivation of students in vocational education in Hungary, based on the study survey of vocational education and engineering students. By looking for all the traits that can be used to capture, describe and facilitate their career motivation, their teacher socialisation can be effectively carried out. A number of their motives were explored in the quantitative study. The results of this study show that their motives are mixed, that it is not possible to clearly distinguish between career motives and vocational motives, therefore educational institutions play a key role in their effective career socialisation. Attention should be drawn to the importance of this and to the opportunities and risks inherent in socialisation. In vocational teacher education, career socialisation takes place along the lines of a dual identity, with the importance of preparing for both vocational tasks and teacher roles. The results suggest that successful institutional socialisation is likely to determine the motivations of trainees, thus promoting both career retention and successful and sustainable placement, i.e., the socialisation process is not only dependent on the student.*

Keywords: vocational education and training; vocational teachers; vocational instructors; VET in Hungary

1 Introduction

Professional/vocational pedagogues: engineering teachers, vocational trainers, practical trainers and vocational instructors represent a specific group of pedagogues, although the current legal regulations do not consider them as pedagogues, but as instructors, but the task they perform is not only education, but also upbringing and socialization, at least as strong in terms of pedagogical content. with elements along the acquisition of a profession, as in the arenas of public education.

In the last decade, the prestige of the field has declined, not only the financial value, but also the social acceptance and recognition has declined significantly, the players in the profession have aged, aged out, left the field, or did not choose it at all. If teachers were to leave their careers anywhere, it was in no other field than vocational training, and if somewhere significant surprises have to be made in order to return teachers, educators, it is also vocational training. In agreement with the ideas expressed in Vocational Education and Training 4.0 (Medium-Term Policy Strategy For The Renewal Of Vocational Education And Traningand Adult Education By The Hungarian Government): "One of the keys to the competitiveness of the Hungarian economy is quality vocational training." and this cannot be built on other foundations than quality vocational teachers.

The aim of the study is to contribute to the exploration of the situation of the participants in vocational teacher training by examining the motives of the students participating in the training. Another goal is to get to know the starting point of their career socialization and the level of their career motivation and professional motivation.

2 Career socialization and career motivation of vocational teachers and vocational instructors

2.1 The basic structure of vocational teacher training in Hungary

Within teacher training as a whole, vocational teacher training is diverse, but in its diversity there are common features that strengthen unity in their diversity. Despite its many orientations and varied training structure, it is an independent subsystem [1]. In the vocational teacher training, the engineering teacher training and the vocational instructos training preserved the duality of the requirement of "professionalism" and "teaching", and the expectation of professional knowledge as a prerequisite for obtaining a teaching qualification and practicing teaching activity

[2][3]. Another characteristic of vocational teacher training is that the professional, disciplinary preparation prepares the teacher for the qualification of several subjects. All of this is present at all levels of vocational teacher training - in engineering teacher training as well as in the training of vocational instructors - since the training as a whole fits into the vocational structure and follows the vocational training [2].

Vocational teacher training must meet both the need to strengthen practice orientation and the adult training tasks formulated in the spirit of lifelong learning [4]. Engineering teacher training belongs to the field of teacher training, although it is also closely related to the specialization areas. The reason for this is that the pedagogical-methodological preparation of engineering teachers is closely related to engineering education, and as a complex technical and pedagogical education, it can only be effective in the future in the environment of engineering education [5]. Vocational teacher training within the same field - following the Bologna model - currently takes place in two cycles in Hungary:

1. The bachelor's level (BSc/BA), which helps direct employment and is basically practice-oriented, which between 2007-2020 meant the Technical Teacher BSc course, and from 2021 the Technical Teacher BA course
2. The master's level (MA), a basically theory-oriented cycle that prepares for development and research tasks, embodies the training of certified engineering teachers [6]

The job of a teacher, whether teaching any subject, requires two basic skills:

1. A technical qualification corresponding to the taught subject
2. The pedagogical and psychological preparation necessary for education and training [7]

In Hungary, the two (professional and pedagogical training) are not necessarily linked. In all cases, the professional training leading to an autonomous qualification (diploma, certificate) is the basis, and pedagogical training is linked to it, either in parallel or afterwards. This structure is also typical of vocational and technical teacher training [8][9].

Technical pedagogy training aims to meet several goals at the same time, the engineering teachers had a wide range of employment options, as they gained a significant advantage during their training. In addition to the above, our engineering teacher training in technical higher education was also popular because our students knew that they were not only being prepared for education in the school system, but also for labor market and workplace training, training planning and organization, which activities they could pursue in parallel with technical activities. Thus, two-way preparation can be sold together in solving complex tasks [10].

The engineering teacher qualification is also attractive in purely technical circles, because employers are happy to employ engineers who, with their culture of behavior and their more sophisticated way of dealing with people, can contribute more to the creation and maintenance of a good working atmosphere, which has concrete financial advantages, for example in production, administration and in marketing. Thanks to their psychological knowledge and advanced communication skills, engineering teachers can use their knowledge in the development of the external and internal relations of companies [10].

2.2 Differences and similarities between vocational and general education teacher training

In vocational teacher training, the professional training is more comprehensive than the training of any other institution that also deals with teacher training. With a diploma, a vocational teacher can teach 10–15 different subjects in his/her field of expertise. Thanks to his comprehensive professional knowledge, the vocational teacher is able to adapt well to the high degree of specialization of vocational secondary schools [4]. The subject system of the pedagogical modules of the vocational teacher training shows great similarities with the training of teachers employed in the teaching of general education/public education subjects. Many related elements can be discovered in the psychological, educational theory and didactic teaching materials, although the negotiation aspect carries the professional orientation of the training. The biggest difference can be seen in the material and perception of the vocational methodologies. In vocational teacher training, vocational methods were an integral part of the pedagogical training module from the beginning, and in terms of their competence, they belonged to the teacher training departments/institutes/centers. It is still debatable today which direction their connection is pointing: towards to more the subject or pedagogical areas. The argument in favor of their pedagogical connection is that the development of the methodologies taught within the framework of the professional departments almost naturally stops due to the loss of contact with pedagogical theory, but mainly with pedagogical practice [7]. The professional socialization of these groups and their motives have not been investigated, or only in a few cases [11][12] in recent times, so my investigation focuses on this area of deficiency.

3 Theoretical Framework - The career motivation

The decreasing number of people in the teaching profession has prompted experts and participants in education policy to explore both the area of leaving the profession [13][14] and the ways to reduce it. This is how career socialization came into focus, and in parallel with it, the topic of career motivation. It can be stated

with great certainty that one of the main factors of a well-socialized teacher's staying in the field lies in his motivation. Becoming a teacher is the result of a long process, from choosing a career, through continuous pedagogical goal-oriented life, career socialization, and up to active old age. Rókusfalvy [15] calls this career development, which is a specific, adaptive and self-shaping activity with the participation of the whole personality and a lifelong process [16]. According to another similar definition, career socialization is a personality development process that begins in childhood and continues during the practice of the career [17].

The basis of career socialization is the acquisition of roles starting in childhood, which is formed through interactions with role partners and reflections on these activities [18]. In this process, the individual's role model is formed [19]. "The role model is the professional self-definition of the teacher, in which the knowledge acquired about education and teaching, the relationship with the students, the elements of his personality mobilized by the teacher's tasks, on the one hand consciously undertaken, and on the other hand unconsciously followed patterns are combined. It is very similar to the concept defined in the literature as a view, but the role model includes several elements, including views." [19]. In addition to cognitive knowledge, career socialization and career identification are influenced by one's own experiences, on the basis of which abilities, skills, attitudes and personality traits are formed, the existence of which is essential for individual professional development [20]. Based on all of these reasons, one can say that the effort to place the choice of teacher majors at the beginning of higher education is not a mistake, since this way a well-founded career socialization can be prepared [21]. And indeed, the goal of higher education for teacher training is that during the years of training, through self-knowledge and career socialization development, the value system of the students develops as much as possible in accordance with the chosen profession. [22][23]. Hercz [24] compares stage theories of career socialization in his investigation of the topic. István Szabó's stage theory divided professional socialization into 4 stages: First, career orientation - the formation of commitment, Second, professional training - the acquisition of the appropriate theoretical and practical knowledge, at the end of which career maturity is formed, i.e. the candidate becomes capable of standing in the studied profession, Third, the beginning of the career - where it becomes clear whether the given field is really for him, if he succeeds, then the sense of vocation, the desire to stay in the field develops here, and the final fourth stage, tcareer management, where they is aware of both the advantages and disadvantages there is the person [25]. In Huberman's [26] theory, the combined effect of survival (deep water) and exploration (first class, independent activity) in the 1st-3rd year is characteristic, staying on track is decided here. This is followed by the period of stabilization and commitment in the 4th-6th year, followed by a period of professional activity and experimentation between the 7-18 years spent on the field, with the recognition of limitations and the search for opportunities, changes, challenges. But this also means the time of inventory and doubt/confirmation.

In summary, Hercz states that, although stage theories are functional, their delineation is not so possible due to the different versions of the career paths of individual teachers, since forced change is possible even after a successful career start due to a strong change in circumstances, think of a suddenly changed personal life situation, e.g. to what extent does moving affect access to the workplace.

However, what definitely needs to be highlighted is that the stages of career socialization - if they can be interpreted - definitely show differences and can be distinguished according to the influencing persons. While at the beginning the influence of the family and parents is strong, later the influence of the peer group and teachers becomes decisive. And this moves significantly in the direction of co-workers, managers and colleagues [27].

Further examining the theoretical approaches to motivation, Szontagh [28] differentiates between professional motivation and career motivation, while according to professional motivation the process of education is seen as a personal inner "calling", while career motivation is linked to the choice of a teaching career as a profession. The former appears in the commitment to the profession, community and social involvement, and its connection to the job is therefore not strong, since, if e.g. the position does not mean an attractive working environment, it does not in itself help to get into the field, Szontagh defines all this as an expectation beyond rationality, i.e. as connected to some kind of transcendence. At the same time, career motivation can primarily be linked to institutional education, i.e. the role of a teacher. Career motivation is also grouped by theories from other perspectives [6]. It is known from both international and domestic research that the reasons for choosing a teaching career can be external (extrinsic) and internal (intrinsic) reasons [29]. Which can be further broken down into individual reasons and motivations related to the work/career as a teacher. Individual internal motivations, e.g. self-realization, social contribution, the social importance of teaching work and the motivation to transfer knowledge [29][30]. But in the literature [12][31] the love of children is also a motivational element mentioned so much. While among the individual, external motivations, freedom and free time should be highlighted as motivational factors, as well as the possibility of professional development and job security [32] or the possibilities of building an intellectual career [33-35], but compatibility with family and private life should definitely be listed here as well [36]. External motivational elements linked to work, for example, such as positive experiences related to previous teaching/learning, perceived employer expectations, faculty atmosphere, working conditions. These are mentioned both in domestic [12][31][37] and international literature [38].

Overall, the literature emphasizes the existence of intrinsic motivations as the determining factors for staying on the job and choosing a career. However, the Hungarian teacher survey conducted between 2013 and 2015 [29][30] concluded that their career choice decision was based mostly on 5 factors: the appropriate skills; shaping the future of children/adolescents; on the importance of working with

them, but the intrinsic value of the career and previous teaching/learning experience also shaped their career choice decision.

4 Methods - The examination

In this study, the answer to the question of where vocational teacher students studying part-time in a vocational teacher training institution in Hungary are in their career socialization was explored, asking questions concerning the characteristics of their career motives, how can their motivation be seen in action and how can we help them to successfully socialize. It is of particular importance that we are talking about vocational teacher training, where the students enter with already existing professional knowledge and motivations, and the training institution is responsible for "merely" their pedagogical socialization or a part of it. How does this double burden affect the students of vocational teacher training? How do they judge the expectations that trainers have of student teachers regarding their career orientation, skills, attitudes, career readiness, and career suitability essential for the career. The development of the measuring instrument of the research was based on previous studies [6][9], in which the adaptation of the methodology learned from the national [11, 16-18, 28] and international [36][38] literature and applied to career motivation studies was decisive for us. The final formulation of the questions of the empirical investigation took its final shape during a trial interview. The guiding principle when compiling the questions was to examine career motivation in a field (students of vocational teacher training) where no similar type of investigation has yet been conducted. That is why the hypothesis testing method was rejected and the open research questions.This study does not verify hypotheses, but seeks answers to open research questions was used, which lays the foundations for a longer longitudinal study. The questionnaire survey was conducted among students of the engineering teacher and vocational education program at the University of Dunaújváros in the 2nd semester of the 2021/22 academic year. The selection of the institution is justified by the fact that, in terms of the number of vocational teacher training students, the institution represents for us the largest sample of experts from the entire number of vocational teacher students in Hungary. The questionnaire survey was completed voluntarily, considering the random nature of the sample, those who were students in vocational teacher training took part in the survey. The data was collected by filling out an online multiple-choice questionnaire. The engineering teacher (14 people, 47%) and vocational instructor (47 people, 55%) students included in the sample make up nearly 50% of the participants in the training, so the conclusions that can be drawn from the results can be considered stochastic.

4.1 Characteristics of the examined sample

In terms of the age distribution of the respondents, they are between 20 and 60, mostly following the normal distribution peaking at the age of 45-46, their average age being 42.46 years. 50.8% of respondents are men, while 49.2% are women; although this area of vocational teacher training was dominated by men, as was the teaching of vocational subjects in the technical training area, among our vocational education students, a large number of students studying service and business specializations is increasing due to the nature of the field.

5 Findings - Results

5.1 Motivation for a teaching career - to become a teacher

This area was the focus of the research, so during the theoretical knowledge and research questions, the obvious goal was to reveal as much as possible the motivations for the career and the profession, to create an image of a student group that is small, but at the same time well-served in the teaching society. refers to a group with separable and characteristic features: teachers preparing for vocational training. The first question in the topic was whether the respondents wanted to become teachers. 91.8% answered yes, and only 5 people said no. In the sub-samples, i.e. in the distribution of majors, it was thought that a correlation ($r=0.263$, $p\leq0.05$) was discovered, according to which there are more students among engineering teachers who do not want to be teachers than their colleagues studying vocational training. After researching the reasons for this, it is known that the engineering teacher major, as a master's degree, can be completed with an existing engineering degree, and in recent years, several people have verified the labor market value and convertibility of this degree, provening it’s effects on people leaving the profession and attracting them to the labor market [6][14]. While the vocational education major is a basic education, which builds on the students' professional knowledge and provides the pedagogical and psychological knowledge necessary for practical education.

When further researching the reasons for rejecting the teaching career, among the answers of those who rejected, the most common was the lack of preparation: *"not yet, because I'm not ready for it"*; and low wages. As a result of keyword research subjected to content analysis, among the positive answers, 21 of the 61 answers mentioned the words like, would like, which can give cause for confidence; moreover, several people indicated in their answers that they are currently teaching without a diploma, but feel the need for it, in addition to family traditions, the interest, the importance of professional training, making their dreams come true, the

beauty of working with children, the transfer of knowledge, the importance of their acquired knowledge, challenges also appeared, as one of our first-year vocational instructors put it: *"It is important that future generations receive quality education part. This determines the future and livability of a Country, Society."*

54.1% answered yes to the question of whether there was a teacher in their immediate family. Certainly, the family model shaped their career motives in a positive direction. At the same time, this is only a non-significant assumption, because I did not find a correlation between the desire to become a teacher and the example of family/relatives during the investigation, just as their own pedagogical experiences did not significantly motivate them to become teachers. I thought it was important to learn why they chose a major that prepares them for a teaching career. Their answers were similar to the question of their motives for the career, i.e. they work in the field, without a degree, and either some external pressure (e.g. employer) or internal motivation makes them to complete the course. Some of them chose the field because of their family traditions, their interest, their love for the profession, their affection, and their desires were also driving forces. Here I saw that in their case it is not possible to sharply and decisively separate career motivation and professional motivation factors.

After all this, it was interesting to learn how the respondents felt, whether there was a personality who was decisive in shaping their career. Only 6 people answered that there was no such thing, while more than half of the respondents could name a specific person who was either one of their teachers, or from their family (parent, child), or from their work environment (typically from their managers). In terms of their characteristics, the outstanding majority of these role models are characterized by professional knowledge and preparedness, as well as perseverance, motivational ability, consistency, firm, yet humble, humorous, helpful, but here the role of mentoring and mentor also appeared, that of a teacher who takes care of talents, also of an observant, loyal personality.

Regarding their teaching experience, 70.5% of respondents have ever taught or are currently teaching. In terms of their other relationships with children, they mentioned babysitting, coaching, corporate adult training tasks, and tutoring, catch-up, talent management, and becoming a professional instructor from a practical training course were also mentioned by several, mainly among vocational education students; and some also classified their children's upbringing in this circle. In the following, I have evaluated teacher qualities on a 5-point scale (Table 1) regarding their importance, which are prioritized in the majority of career motivation studies, in order to gain knowledge of the image of the teacher in the students' minds, the person of the ideal or expected teacher regarding.

Table 1
Evaluation of teacher qualities

	Mean	Std.
cooperation skills	4.62	0.697
child love	4.57	0.704
sturdiness	4.41	0.702
tolerance	4.38	0.791
a solid value system	4.36	0.873
outstanding professional knowledge	4.36	0.831
good performance	4.34	0.739
self-knowledge	4.28	0.768
sense of humor	4.19	0.760
authority	4.19	0.982
own pedagogical concept	4.17	0.704
public esteem	4.09	0.996
managerial skills	3.90	0.852
appropriate relationships	3.64	1.150

Source: Authors' own calculation using SPSS

While there was hardly any difference between the individual properties - in terms of their average - it was still possible to compile a ranking between them. The teacher-students interviewed agreed that, in addition to the ability to cooperate and love children, decisiveness, tolerance, and outstanding professional knowledge are equally important, while they considered appropriate communication, managerial skills or public respect to be less valuable, but their own pedagogical concept was similarly left behind, sense of humor and authority as well.

Highlighting one's own pedagogical concept among the characteristics, I again found a correlation ($r=-0.312$ $p\leq0.05$) between their major and their answers, since the majority of our vocational education students considered their own pedagogical concept more important than our engineering teacher master's majors. When the question was later asked to select the most important 3 and to mark the three least important as well (Table 2), I found a very minimal difference in their answers compared to the previous scale values.

Table 2
The most important 3 and the least important 3 qualities/competencies

	Competencies	Previous / average ranking
Most important 1	Child love	↓2
Most important 2	Sturdiness	↓3
Most important 3	Collaborative skills	↑1
…		
Least important 3	Public esteem	=
Least important 2	Managerial ability	=
Least important 1	Appropriate relationships	=

Source: Authors' own calculation, using SPSS

The question gave us the opportunity to subject their answers to principal component analysis (Extraction sums 64.65%) varimax rotation with Kaiser Normalization, as a result of which 3 distinct groups emerged (Table 3):

1. The first includes the ability to cooperate, love for children, tolerance, sense of humor, self-knowledge, managerial skills, good behavior, and as a combination of these, it even embodies "the ideal teacher", while the

2. Group 2 included the characteristics of the "traditional, authoritarian" teacher, such as public respect, authority, appropriate connections, solid values, and decisiveness.

3. The 3rd group was formed by the respondents on the basis of only 2 characteristics, along with outstanding professional knowledge and a high evaluation of their own pedagogical concept, this group can be called the group of "the self-aware teacher".

Table 3
The result of the principal component analysis

Rotated Component Matrix[a]			
	Component		
	1	2	3
cooperation skills	0.825		
child love	0.707		
tolerance	0.676		
sense of humor	0.655		
self-knowledge	0.649		
managerial ability	0.585		
good performance	0.531		
public esteem		0.790	
authority		0.784	
appropriate connections		0.781	
solid values		0.606	
sturdiness		0.565	
outstanding professional knowledge			0.822
own pedagogical concept			0.809

Source: authors' own calculation using SPSS

5.4 Career socialization and future plans

If their career vision is stable, their professional vision is realistic, and their socialization is successful, then they think their profession is also attractive to

[a] Rotation converged in 5 iterations. (Extraction Method: Principal Component Analysis.; Rotation Method: Varimax with Kaiser Normalization.

others. Along these lines, I asked the students whether they would advise their relative or student to become a teacher today. 62.2% of the respondents said yes, while 37.8% would not advise it. Among their reasons, the aspects of financial and social esteem were mentioned as rejections, but there was also the issue of suitability for the field, i.e. education is not an area for everyone; there is a lack of suitable conditions in terms of educational policy and infrastructure, there is a lot of stress. While their positive answers were security of existence, dedication, filling in areas of deficiency - a sense of necessity, knowledge sharing, love of children, time management, good training at the educational institution, responsibility, and the talent also appeared.

Returning here again to the motives for applying for the program, I have already established that the interest in the field of study (46.67%) attracted the students, the goal of obtaining a diploma (15.6%) was the next reason, while workplace expectations and personal motivation inspired their studies in the major in roughly the same way. At this point, we can turn back to the subject of career and professional motivation and its mixed appearance among our students.

In this question, there was a significant difference between the vocational education and engineering teacher students ($r=0.339$; $p\leq0.05$), according to which the vocational education students wanted to obtain a degree in this field primarily because of their interest in the field, while their engineering teacher students wanted to obtain a master's degree. Looking at this topic, I also found that those who had a teacher in their family were more interested in this major, professional field, than those who were motivated to complete the major by their workplace expectations or previous qualifications. The following correlations also emerged from the regression analysis (Figures 1-2). First of all, we have to see that majors were clearly linked to career motivation (Figure 1), and I also experienced this in relation to age (Figure 2).

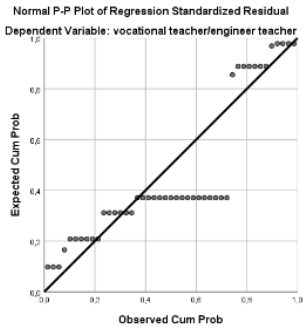


Figure 1

The relationship between training and career motivation.

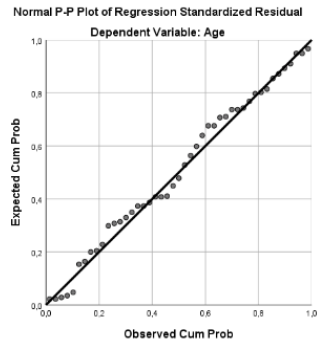
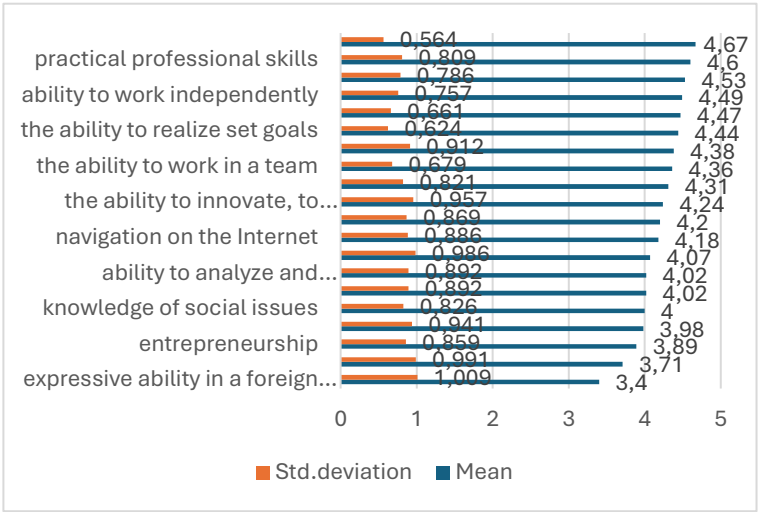


Figure 2

The relationship between age and career motivation.

Source: Authors' own calculation using SPSS

In the following, I examined how they judge the elements of healthy professional socialization, which are the competencies that are essential for professional pedagogic work (Figure 3). I asked the respondents to indicate all of this on a 5-point scale, where 1 means not important at all, while 5 means completely important.



Source: Authors' own calculation, using SPSS

Figure 3
The order of competences deemed necessary for teaching work

Looking at the answers to the question, one can see that relationship-building and communication skills, practical professional skills, and the ability to learn and self-improve were ranked as the most important. The ability to express oneself in a foreign language, the ability to solve calculation tasks and the entrepreneurial spirit are considered the least important, which is unfortunate because the ability to express oneself in writing is also at the end of the list. However, none of the competencies received a rating worse than average, while in terms of standard deviations, the most disputed assessment was the ability to express oneself in a foreign language and the ability to count in the last two places. While the competencies in the first place show greater agreement among the respondents. Among the competencies, there was a difference in the assessment of theoretical proficiency and practical proficiency, in accordance with the preliminary expectations, in the case of the engineering teachers, the assessment of theoretical proficiency was considered more important in the case of the random sample, while that of practice (r=-0.308), where the vocational instructors felt that competence was more necessary. When examined by principal component analysis (Table 4), I

obtained the following result (Extraction sums 82.02%) with Varimax rotation and Kaiser normalization. We can separate 5 groups according to their answers:

1. Those who support theory and practice, the ability to work independently, a high work ethic, and self-education, i.e. "self-employed", who can teach and learn, classified themselves here
2. In group 2, tied to the guiding thread of "immersing in details", we can put those who prefer calculation analysis, logical, technical skills, navigation on the Internet and language skills
3. The 3rd group consisted of the "innovators", people with an entrepreneurial spirit and experts in social issues
4. Group 4 was the group of "goal-oriented", precise, fluent in writing
5. Group 5 is the "team players", for whom networking and communication were valuable competencies.

Table 4

The result of the principal component analysis.

Rotated Component Matrixa					
	Component				
	1	**2**	**3**	**4**	**5**
theoretical professional skills	0.818				
practical professional skills	0.761				
ability to work independently	0.757				
the ability to learn and self-train	0.729				
high workload	0.672				
organizing skills	0.569				
ability to analyze and organize		0.804			
the ability to solve calculations and calculation tasks		0.774			
logical, spatial thinking		0.749			
proficiency in the use of technical and computing devices		0.735			
navigation on the Internet		0.673			
expressive ability in a foreign language		0.533			
entrepreneurship			0.858		
ability to innovate and discover new things			0.740		
knowledge of social issues			0.591		
precise work				0.796	
written expressiveness				0.765	
the ability to realize set goals				0.569	
relationship-building and communication skills					0.863
the ability to work in a team					0.603
Extraction Method: Principal Component Analysis.					
a. Rotation converged in 10 iterations.					

Source: Authors' own calculation using SPSS

6 Discussion

At the end of this study, I returned to the theoretical starting point, according to which "*by career motivation we mean the set of specific motives that include orientation towards a specific career and the factors that lead to a long-term commitment; it can essentially be considered the first step in career development."* [39].

In the field of public education, a series of investigations investigated the motivation of teachers and students participating in teacher training. Vocational teacher training does not abound with such examinations, which can be explained not only by the low number of those who complete the training, among them those who enter the field and become permanent teachers, but also by the fact that the training itself means a relatively small number of staff and a few training places in Hungary. Vocational education is struggling with a teacher shortage, the teachers here have to resist the absorbing effects of other careers, we can think of several areas of the competitive sphere, especially the economic and engineering professions. If we examine this from the point of view of career and professional motivation, we can say that the teachers of this field must certainly have significant professional motivation to stay in the teaching career. However, the extent to which an educational institution is able to maintain the career and professional motivation of students entering training with different competencies and motives, thereby reducing the rate of dropouts and career abandonment, surely depends on many factors. According to previous studies [40], *"the teaching profession shows special professional characteristics, its cultivation requires a specific personality structure, which presupposes a defined theoretical and methodological preparation, and a behavioral attitude, thus requiring an adequate training and career socialization process"* according to Pusztai [41] during the course, the perception of the career and the feeling of commitment shows a growing tendency among the student teachers, a general observation is that the students entering the training and those about to graduate have different career motives, and their professional commitment is strengthened by the practice of the teaching profession, the time spent in the training, which contributes to the to consolidate professional identification; however, some researchers do not accept the effect of time spent in training as a career motivation factor [42]. In university education, in addition to traditional knowledge transfer, soft-skills development can help students to prepare not only for their specific professional work, but also for their own personal development [43]. However, it has been proven that the importance and proportion of intrinsic and extrinsic motivations also changes with the time spent on the course [12]: *"the love of children and teaching (the subject) and the sense of vocation appear in an overwhelming proportion among the motives of career starters"* , but later this can be supplemented or replaced by more practical motivations, so it can be assumed that special importance should be given to strengthening professional motivation in training. The experiences of teacher research [44] show that the quality of the work

of the teachers determines student effectiveness. And this depends on nothing less than the professional commitment and satisfaction of teachers, so teachers who are satisfied with their work and committed to their work can be more effective teachers. Contrary to what is known from international literature [45][46], the examined vocational teachers do not think of education as a second career, but consciously prepare for the teaching career. The choice of education as a profession is a significant motivational element in their career choice, as is the teaching career itself [47]. Their dual identity can also be seen in their relationship to their profession and education, and it also fundamentally determines their motivations [48], as confirmed by this study. The most important career motivational elements of the vocational teachers included in the study are the feeling of social usefulness, the recognition of teaching ability, and teacher role models who strengthen the commitment to the career. The personal pedagogical experience they already have is also significant, as 70.5% of them have ever taught or are currently teaching, but this does not mean their full-time activity, as is the trend known from other international measurements [49].

7 Conclusions

In the course of this work, I tried to reveal the factors that determine the career motivation of a small but significant group of vocational teachers, which can contribute to making the teaching career more attractive and by analyzing the retention of teachers in the career, preventing a large number of career leavers. In the course of the investigation, I obtained information about what personal factors determine the choice of a teaching job, job satisfaction, and commitment to quality work. My research confirmed that students' career motivations correspond to their level of career socialisation and their educational situation. Their self-evaluation is well developed and their career prospects are realistic. Whereas previously I found that the expectations set for teacher candidates are very often idealized and unfulfillable [50]. The results of the investigation show that educational institutions also have a special importance and role in the process, since the student is not left alone with his feelings and initial uncertainty. Studies conducted at the beginning of the 2000s [34][51] proved that participation in teacher training is not driven by the choice of a teacher's career, but by motivations for entering higher education. a significant part of them enter the training well motivated but with little awareness, i.e. they owe their motivation to their school experiences, the personal influence of their teachers and wrong ideas about the career [28]. The teacher training institutions and teacher training centers, cannot have any other task, only to continue effective career socialization during the training and turn it into a conscious career perception, doing all this in an environment that works against career motivation due to the low financial and social prestige of the career. The framework for vocational teacher education has been significantly shaped in recent times by the new Vocational Education and Training Act, which lifted the obligation for teachers

to have pedagogical qualifications in order to reduce the shortage of teachers. This has been reinforced by the desire of education policy to ensure that teachers with sufficient professional knowledge to teach are available as soon as possible. The short-cycle teacher training and the re-launch of the Vocational Isntructor Training in 2021 have given a strong impetus to these efforts.

The career socialisation of teacher candidates with established, stable professional knowledge and a professional identity, and its relatively short duration, is an even greater challenge for training institutions and places even greater socialisation demands on them. This study was intended as a contribution to meeting these challenges.

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