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PH.D. THESIS EXTENDED SUMMARY

**THE ROLE OF INTRINSIC MOTIVATION
IN CHOOSING THE TEACHING CAREER
IN PRESCHOOL AND PRIMARY EDUCATION**

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TABLE OF CONTENTS

<i>Acknowledgments</i>	3
INTRODUCTION	4
Structure of the thesis	4
Chapter I. RELEVANCE AND OBJECTIVES OF THE THESIS	4
Objectives of the Study	4
CHAPTER II. THEORETICAL FUNDATION OF TEACHING IN PRESCHOOL AND PRIMARY-SCHOOL AS A CAREER CHOICE.....	5
Preschool and primary school teacher development in Romania.....	7
Studies and Statistics Regarding the Romanian System of Education.....	8
CHAPTER III. THE STUDY OF MOTIVATION FOR CHOOSING TEACHING AS A CAREER	10
3.1. Study 1. Intrinsic Motivation and Factors Associated to Choosing Teaching as a Career: A Meta-analytic Review	10
3.2. Study 2a. Study to validate the scale entitled Factors Influencing Teaching Choice Scale, adapted to Hungarian.....	14
3.3. Study 2b. Study of the change of motivation related to a teacher's career, longitudinal study	22
3.4. Study 3 Aspirations index validation study, adapting to the Hungarian language	25
3.5. Study 4. Presentation of the motivation behind choosing teaching career, content analysis	29
3.6. Study 5. Personality traits of Preschool and Primary School Teacher Training Programs.....	33
3.7. Study 6. Resilience as a way of strengthening career motivation	38
CHAPTER IV. CONCLUSIONS AND GENERAL DISCUSSIONS	46
REFERENCES.....	49
KEYWORDS	54

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INTRODUCTION

The chosen topic of the present study is the role of intrinsic motivation in choosing teaching as a career. The study is organised on two levels: firstly, it presents the scholarly bibliography dealing with the choice made by the young to become teachers, and secondly, with the study focusing on the motivational aspects of carrier choice.

Structure of the thesis

The doctoral dissertation is structured in four chapters, logically following the chosen topic and taking into account its objectives. The chapters are organised according to the different themes. The first part of the thesis comprises of the theoretical part, the analysis of the scholarly literature, the meta-analysis of materials presenting empirical data, followed by the two adopted scales: the scale of the factors which influence the choice of becoming a teacher and the Aspirations index. The third part of the thesis explores the motivation of choosing teaching in preschool and primary school as a profession, the results of the survey conducted on the traits of personality of these students, and of the resiliency programme elaborated for them. The last part of the thesis comprises of the conclusions, discussions and the bibliographical references.

CHAPTER I. RELEVANCE AND OBJECTIVES OF THE THESIS

The topic is timely as a drop in the number of teachers working in the education system can be observed globally. Furthermore, there is a tendency of leaving the teaching career, resulting in a notable fluctuation and lack of personnel in this field. In the last ten years several studies have been conducted on the motivation of the young people, and that of the actual teaching staff for choosing this career. Romania can boast with very few empirical studies.

Objectives of the Study

Theoretical Objectives

The theoretical objectives of the present thesis is to identify and familiarize with the results of theoretical and empirical research conducted up to date, regarding the motivation of students in vocational schools bound to become teachers, of choosing teaching as a career, and to draw conclusions based on the publications in this field.

Methodological Objectives

The methodological objectives deals with the reliability of the scales used to measure motivation of the students choosing to become preschool and primary-school teachers. For this reason, we aim at the adaptation of the Factors Influencing Teaching Choice Scale (Watt & Richardson, Motivational Factors Influencing Teaching as a Career ChoiKce: Development and Validation of the FIT-Choice Scale, 2007) questionnaire and that of Aspirations (Kasser & Ryan, 1996) to the Hungarian language, with a view to explore the motivation of teaching as a career choice. The adaptation of the abovementioned questionnaires was necessary as no accessible measuring tools were available in Hungarian.

Secondly, we tested a programme of improving the reliability of the students in order to help them meet the expectations of the university studies at teachers' college and later on in the field of work.

Practical Objectives

The practical objective of the present thesis is to highlight student motivation of those who study to become teachers, regarding their extrinsic, altruistic and intrinsic motivation. We consider this of being of utmost importance. Being aware of the reasons that guide the student admitted into teachers' college we can search for the motivational methods which will shape them for the teaching career. As a result, they will be able to learn more efficiently, develop necessary competences, improve teaching skills. We also consider offering ideas for keeping the future teacher in the system of education much longer.

The study of motivation with the aid of the FIT-Choice scale allows involvement in the international surveys on choosing teaching as a career by the young people through the empirical data on Romanian population. Thus, a comparison among different socio-cultural contexts of the countries surveyed is made possible.

CHAPTER II. THEORETICAL FUNDATION OF TEACHING IN PRESCHOOL AND PRIMARY-SCHOOL AS A CAREER CHOICE

In the study of scholarly literature we focus on the conceptual elements and their definitions, regarding motivation, in order to see the theoretical frame within which we can discuss the problem of teaching as a career choice. Starting from the social-cognitive theory (Bandura, 1986), through the structure of the human agency (Bandura, 1991a) we reach motivation theories. We define intrinsic and extrinsic motivation, we describe self-determination, the expectancy-value model (Wigfield & Eccles, 2000), the principles and the effects of self-regulation and we present how these find their place towards reaching the targets in the implication of the decision of teaching as a career choice.

Deci et al. (1991) emphasize that if we apply the theory of self-determination in education, we can conclude that intrinsic motivation, the values and the internalized regulating processes bring along the interest to learn, the appreciation of education and the belief in the personal capacity and characteristics. Their studies show that these processes result in high-quality learning and conceptual understanding that lead to personal growth and regulation.

Extrinsic motivation is defined through activities that we perform with a view to fulfill, and not just for the sake of being done. Deci and Ryan (1985a) suggest four types of extrinsic motivation for self-determination: external regulation, introspection, integrated identification and regulation. External regulation appears through recompenses and sanctions. Introspected regulation is a form of internalisation, when the individual seeks for the reasons of their activities in the exterior, and they subdue to it. Through identification the individual internalises the external reasons of their activities, and these activities become appreciated and important, being considered the choice of the individual.

Amotivation appears when people do not notice the relationship between their activities and their results which leads to a feeling of incompetence or the impossibility to influence the evolution of events, regardless of having intrinsic or extrinsic motivation (Deci & Ryan, 1985a).

Deci et al. (1991) focus on the necessity of competence, the necessity to relate and the necessity of autonomy (or self-determination). Competence requires understanding of achieving the external and internal results and the efficiency in different preoccupations; networking implies the development of safe and satisfying relationships with others; autonomy refers to the self-initiatives and self-regulation within personal actions. Motivation, performance and development can be improved by ensuring the opportunities of satisfying the psychological needs of competence, for networking and autonomy. The intrinsically motivated behaviour derives from the pleasure and satisfaction of fulfilling the activities. People are

interested and they get attached freely through free will and without expecting any material rewards. These behaviours represent the prototype of self-determination, originate in the self and are fully sustained. The intrinsically motivated behaviour is exercised with a view to reach the expected results. IN/Extrinsic motivation has four types: external, introspected, identified and integrated forms of regulation, the central concept being internalisation. In SDT internalisation is a motivational process through which the individual is inherently motivated to internalise the regulation of activities they are disinterested in, but which are useful for the proper functioning of the social context; the internalization and integration process is efficient and is a function of the social context. External regulation (EMER) refers to the behaviours which are initiated from the outside (e.g. recompense and punishment) being as far as possible from self-determination. Introspected regulation (EMIJ) presents rules or internalized needs, which press the individual towards a certain behaviour, being sustained by promising rewards (e.g. self-growth) or punishments acknowledged as threats (feeling of guilt). Introspected regulation, even though it is an internal one, is not considered to be self-determining because it resembles more external control than self-determined regulation. Identification regulation (EMID) appears when the individual appreciates the behaviour and identifies with it, accepting the regulation process; this process is closer to self-determination than EMER or EMIJ because the individual is involved willingly, feeling the free or intentional choice. Integrated regulation is a totally self-integrated process where the values, needs and identities are reciprocally assimilated with the identification. This process is fully self-determined, manifested especially in adulthood. It is related to intrinsic motivation, but while intrinsic motivation arises interest in the activity itself, integrated regulation considers the importance of the activity from the point of view of the appreciated results.

Vallerand (1997) and his colleagues built a hierarchical model of intrinsic and extrinsic motivation, starting from the three basic concepts: intrinsic motivation (performing an activity out of sheer pleasure and satisfaction), extrinsic motivation (performing an activity to obtain something externally) and amotivation (a relative lack of intrinsic or extrinsic motivation), positioning global, contextual and situational motivation. Global motivation affects the contextual one. Contextual motivation and generally taken situational motivation are the result of interpersonal influences and social factors. While intrinsic motivation result in happiness and a feeling of freedom and relaxation, extrinsic motivation puts tension and pressure on the individual, focusing on the benefits that come from taking part in the activity; furthermore, amotivation, when the individual is not at all or just a little motivated, leads to a feeling of incompetence and uncontrollable expectations.

Watt and Richardson (2015) define two types of approach for the study of motivation and the beliefs of the teachers: the ethical and the emical approach. The emical approach offers the possibility to understand the development of teacher motivation to become prominent and change and are in a dynamic interaction with factors connected with students, classroom and school. This approach focuses more on the psychological variables, putting less emphasis on the context or contextual or situational aspects (with some exceptions). In this context, within the expectancy-value theory (EVT) self-related beliefs are described, which in turn are combined with different types of value dealing with ability and expectancy of success to follow the behaviours of fulfillment (e.g. participation, effort and persistence).

Brookhart and Freeman (1992) analyzed 44 studies which dealt with teaching as a career choice. The instruments used in these studies were surveying elements (e.g. questionnaires, interviews, essays, etc.) which requested ranking or multiple choice. Although the instruments were very different, the most used patterns were the altruistic reasons oriented towards services and other intrinsic motivations. The reasons identified in the studies of the 60's were as follows: the satisfaction caused by the career choice (not so much the payment, but the desire to help other, especially the children), a preparation for family life, or the desire

to work with children and adults (especially among women), the desire to spread knowledge, to further their studies and serve the society. In the 80's the tendency of the motivation was to serve and help others, to work with people and the interest towards children. There were noticeable differences among the motivations depending on the teaching level: those who were to become primary school teachers were focused on children, whereas those who were meant to be secondary school educators focused mainly on the teaching material and were often influenced by a former teacher. In time the motivation of women and men has changed a lot, but the tendency of women to make a faster decision remained constant.

In his study, Bastick (1999) conducted 15-minute interviews with approximately one third of the students who were preparing to become teachers in Jamaica; the results of this study were compared with those of the only major study ever conducted up to that moment by Evans in 1993, who based his survey on a questionnaire delivered by post. Bastick (1999) studied the three motivational factors of teaching as a career choice: extrinsic, intrinsic and altruistic reasons. Results show that the extrinsic reasons were the most common, closely followed by the altruistic ones, the intrinsic reasons being few. The motivations of men are different from those of women: while women are mostly subject to extrinsic motivation, being financially motivated, the motivations of men are mostly intrinsic and altruistic. However, men are less motivated to become teachers. This is very far from the expectancy, but it can actually reflect the social structure of the 90's as in Jamaica women were the members of the family who offered financial support. The primary motivation most often mentioned as a reason to choose teaching as a career is altruism along with the desire to work with children, which is different from Bastick's findings (2000a). Extrinsic motivation is mostly related to the free time that comes with this job (long holidays, enough time to earn money from other sources), satisfactory remuneration, the possibility to become manager, job intellectual, good social status. Intrinsic motivations deal with the childhood dream to become a teacher, willingness, and the possibility to have a career for life. Social contribution, the development of children and the love for them are considered examples of altruistic motivation (Bastick, 2000a). Intrinsic motivation showed a relationship between age and experience, which means that older teachers are subject to higher intrinsic motivation, making one think that this keeps them on the job. Bastick (2000a) reported that in choosing teaching as a career intrinsic motivation is the most important, followed by altruistic and then extrinsic motivation.

Dörnyei and Ushioda (2011) defined two dimensions of teacher motivation: the motivation to teach and that of staying on the job. As a result the motivation of teachers consists of: intrinsic motivation linked to the desire to teach; social-contextual influences linked to the conditions of external constraints, the temporal dimension with an accent on the engagement for life; demotivational factors originating from negative influences.

Preschool and primary school teacher development in Romania

Preschool and primary school teacher development in Romania is realized both on high-school level (teachers' college) and at university level. Universities function according to the Declaration of Bologna in 1999 (Law nr. 288 from 24 June 2004 and Government Decision nr. 88 from 10 February 2005), the regulations of National Education Law nr. 1/2011. University studies concluded with a BA are called the Pedagogy of Preschool and Primary School Education lasting for three years with a possibility to further studies and obtain a MA in education sciences. These university programs can be followed by high-school students with a Bacalaureat degree as well as by educators from preschool and primary school with a degree obtained in high-school, or in a short-term education institution (they are qualified as preschool educators or primary school institutors) with no higher education studies. University studies of this kind conclude with a BA exam in education studies, with double specialization: teacher

for primary school and preschool education, later being able to choose the one they prefer. (Before 1990 there were two pedagogy classes in Hungarian in Romania: in Oradea and in Targu-Secuiesc, which means that teachers' colleges were in high demand, the places being divided for the different counties depending on the need. In those days teachers were appreciated and the profession was respected, the remuneration was relatively good, job intellectual assured. The places in the teachers' college were taken by students with high intellectual capacity in good skills. After the political changes in 1989 the reforms brought over in the education system allowed for more places in this sector firstly by raising the number of places in the schools and secondly by opening new centers to meet the needs of the market in other towns such as Aiud, Cluj-Napoca, Odorheiu Secuiesc, Satu-Mare, Târgu-Mureș, Zalău. (Bordás, 2021).

Admission to PIPP both on high-school and university level comprises of exams which check aptitudes/skills with the possibility of elimination like music, physical abilities, artistic skills and an interview that investigates communication skills, argumentation and diction (Organization and Functioning Regulations for Teachers' Colleges and High-Schools in Romania, 2019; Organization and Functioning Frame Regulation of Teachers' College in the undergraduate system of education, 2020; Order nr 4812/2020).

Studies and Statistics Regarding the Romanian System of Education

Massari (2014) studied why teaching is chosen as a career on a group of 173 students studying in the PIPP classes. Massari (2014) used a questionnaire based on eight questions targeting the motivation that influenced them in choosing teaching as a career, what teacher development actually means to the students, which are the essential objectives in their growth as teachers, how these objectives had changed regarding the start in their career, what their expectancies were regarding self and professional development, and which are the most relevant intrinsic and extrinsic motivations in their choice of teaching career. The first item was measured on the Likert scale, while the other items were open questions. The results of this study show that the most often mentioned reasons for choosing teaching as a career both in preschool and primary school are: the vocation for teaching, the passion and love for children, the desire to serve the society, the professional development for this career, the status and desire for authority, working conditions, other people's influence (family, friends), the autonomy and flexibility of the schedule, intellectual challenge. The reasons often mentioned are altruistic, closely followed by the intrinsic ones and the fewest ones are considered to be extrinsic.

According to Eurostat (2021) there were 487.501 teachers in Romania in 2019, compared to 480.772 in 2018 and 481.134 in 2017. These numbers covered all those working in early education, preschool, primary school, secondary and high-school. The numbers show a fall in the number of teachers from one year to another: while in 2019 in preschool and primary school education there were 82.746 teachers, in 2014 there were 86.290 teachers in all. If we consider that meanwhile there was a drop in the number of pupils per class from 30 to 28, and that for the same number of pupils more teachers were needed, than the severe drop in the number of teachers should ring a bell of alarm.

In Romania there were 5.038 teachers under the age of 25 working in preschool and primary school in 2019; furthermore, there were 6.450 teachers in their 20's, 16.151 between the age of 50-59, 6.262 between the age of 60-64 and 941 over 65 (according to Eurostat, 2021). According to Peticila's graph (2020) regarding the age groups of the teachers in undergraduate education, in 2018 the age group between 40-44 was the most numerous one, and those over 50 represented more than one quarter of the whole number.

Based on the TALIS studies made by OECD in 2018 (OECD, 2020) regarding teachers working between 2013 and 2018, a growth of 6.2 points can be observed in the prestige of the

system of education in society (there are no results for both years in Hungary). It is also noticeable that both in Romania and Hungary, unlike the teachers working in urban areas (more than 100000 inhabitants), teachers working in rural areas (less than 3000 inhabitants) feel that their work and efforts are appreciated by the society. Taking into view the fact that prestige can have a decisive role in career choice when we talk about beginners, an analysis was conducted in the order in which the teaching career was mentioned alongside other jobs. Research demonstrated that those who put teaching on the first place in the list of jobs, considered that teaching is appreciated by society nowadays. More than that, these people are more content with their job and have a higher efficacy in their work. (OECD, 2019), (OECD, 2020). However, these numbers are irrelevant for almost half the TALIS countries. A possible explanation would be the different reasons for career choice (e.g. the differences in the criteria students need to fulfill in order to start their university studies and the development offered, or the cultural differences which influence career choice. The conclusion was that very often teachers present discrepancies between the two criteria afore mentioned. Based on the results offered by the OECD for the year 2013 (OECD, 2014), 10.9 of the teachers in Romania regret the choice they had made (the average of the countries included in the research is 9.5%), and 29.4% think that it would be better to choose another job (the average of the countries included in the research is 31.6%). These results are interesting because it is assumed that those who remained in the education system partially regret the choice they made. The reasons may be multiple even though the research itself does not offer any details in this respect. However, an analysis of the aspects which led to the doubt of these teachers would be welcome.

In Romania 64.3% of the teachers who have been interviewed concluded that the disadvantages of the job are less in number compared to the advantages, while the average of the participating countries was 77.4%. We consider that this difference should raise questions. Comparing these results with those of the career choice we conclude that the great majority of those who regret that they have chosen to be a teacher or think that they should have made a different decision remain in the education system even if they consider that the disadvantages outweigh the advantages. As a result, if we analyse the motivation of those who are about to choose the teaching career, we have the chance to find the solution which, beside the fact that it keeps the teachers in the system, it also offers them the chance to feel useful and prevent burn-out. All results considered, we can conclude that 91,1% of the interviewed teachers are satisfied with their chosen career (the average of the countries being 91.2%, while in Hungary the percentage is 88%). Consequently, even though the final number includes teachers who mention the negative aspects of the teaching career, they are overall content with their choice.

Based on the research conducted by OECD for the year 2018 (OECD, 2020) 13% of those interviewed would prefer to teach in another institution (the average of the countries taking part in the research is 20%), are less satisfied with their career choice, their first choice not being that of teacher, are relatively young and did not spend a long time in the institution they would like to abandon. 17% of the teachers are willing to leave the education system altogether in the following 5 years (the average OECD being 25%) and in the case of those above 50 the percentage is 6% (much below the 14% of the OECD).

CHAPTER III. THE STUDY OF MOTIVATION FOR CHOOSING TEACHING AS A CAREER

3.1. Study 1. Intrinsic Motivation and Factors Associated to Choosing Teaching as a Career: A Meta-analytic Review

Theoretical aspects

The analysis of the scholarly literature reveals that the most frequently invoked motivational factors for choosing primary school and preschool teaching as a career are the following: the desire to work with children, intellectual fulfillment, social contribution, the vocation to teach, passion and love for children, status, authority, working conditions, safety at work, the influence of one's family and friends, the flexibility of working hours, the lifestyle, etc. (Bilim, 2014;; Fokkens-Bruinsma & Carrinus, 2014; Manuel & Hughes, 2006; Richardson & Watt, 2006, 2010, 2014; Watt & Richardson, 2007, 2008, 2015; Watt, Richardson, & Wilkins, 2014; Weiss & Kiel, 2013).

The pilot study on the causes of the preference for choosing teaching as a career and the preliminary meta-analytic studies have shown that the strongest career-influencing factors are related to factors such as the intrinsic value of this career, to the perceived abilities, as well as to working with children/adolescents and the ability to shape their future. The scholarly literature (Alexander, Chant, & Cox, 1994; Bilim, 2014; Cruickshank, 2012; DeLong, 1987; Reif & Warring, 2002; Richardson & Watt, 2006, 2010, 2014; Schutz, Crowder, & White, 2001; Watt & Richardson, 2007, 2008; Watt, Richardson, & Wilkins, 2014; Weiss & Kiel, 2013; Zaidatol Akmaliah & Elias, 2004) also mentions other significant factors, but we consider that these are already contained in the chosen factors, complemented with the satisfaction associated to this career choice, or (according to the previous analysis), due to cultural differences, do not carry significant importance in the Romanian context. This latter category includes factors such as personal and social status, the time spent with one's family, the influence of one's family, friends, and teachers, the previously received model, previous experience, autonomy, etc. Following these considerations, we proposed as the objective of this meta-analysis the review of four factors related to teaching as a career choice: perceived abilities, working with children/adolescents, shaping the future of children/adolescents, and satisfaction with career choice.

3.1.1. Objectives and hypotheses

The objective of the meta-analysis consists in the quantitative and qualitative exploration of the relevant data from previous researches and in creating a synthesis of the relations between the intrinsic motivations related to one's career and the factors associated with career choice: perceived abilities, working with children/adolescents, shaping the future of children/adolescents, and career choice satisfaction.

The hypotheses of the research are related to the correlation between the intrinsic value of the career and the factors associated with career choice (abilities, working with children/adolescents, shaping the future of children/adolescents, and career choice satisfaction), in the following manner:

1. The correlation between the intrinsic value of the career and the abilities perceived by the students is significant for students who will become teachers.
2. The correlation between the intrinsic value of the career and working with children/adolescents is significant for students who will become teachers.
3. The correlation between the intrinsic value of the career and the shaping the future of children/adolescents is significant for students who will become teachers.

4. The correlation between the intrinsic value of the career and career choice satisfaction is significant for students who will become teachers.

3.1.2. Method and procedure

This meta-analysis includes studies dedicated to the associations between intrinsic motivation and certain factors related to teaching as a career choice, as measured through standardized tests and other highly trusted methods. No meta-analyses based on statistical data related to this topic were found in the scholarly literature.

The identification of the studies

The relevant studies were identified on the basis of searching the following databases: ProQuest, PsycINFO, PsycARTICLES, JSTORE, EBSCO, SAGE, Elsevier, wileyonlinelibrary, Web of Science, Thomson Reuters, and ScienceDirect, for the keywords: intrinsic motivation, choosing teaching, teaching ability, teaching satisfaction, cognitive profile, professional development, teaching career, professional development, personality, self-efficacy, teacher efficacy, FIT-choice, combined with: primary/elementary pre-service teacher/teacher students/teacher candidates/prospective teachers/future teachers.

Selection of the studies, inclusion criteria

The studies were selected from those found in the databases on the basis of the following inclusion criteria: – studies should present researches related to students who will become teachers – studies should use standardized test or highly trusted experimental methods – studies should present statistical data (enabling the calculation of the effect size) – studies should be published in known languages The Prisma Flow analysis (Moher et al., 2009) contains 894 studies identified in the databases and 31 studies from the official FITCHOICE (www.fitchoice.org) homepage. Thus, we identified a total of 925 studies. After the exclusion of duplicates, 714 potentially relevant studies were left, and their number decreased to 173 after reading the abstracts. Two studies have been in an unknown language to me (Turkish). Consequently, 171 were left for the full text analysis, 158 of which we excluded due to the lack of statistically relevant data, leaving 13 studies to be included in the meta-analysis.

The eligibility analysis left 13 studies for the meta-analysis, presenting subjects bound to become teachers and relevant statistical data for calculating the effect size.

Codification of the studies

The studies were codified directly, on the basis of the information contained in them. In the first phase, We codified the parameters related to the general characteristics of each study: the number of research subjects, the country where the research was conducted, respectively the subgroups within countries, the employed measuring instrument, and the level at which the future teachers will be active (primary school, preschool, middle school, high school, university, or uncategorized). In the second phase, we codified the correlation between the intrinsic motivation and the relevant factors: abilities, working with children/adolescents, career choice satisfaction, and shaping the future of children/adolescents. Table 1. contains the study characteristics selected for the meta-analysis. The studies included in the meta-analysis were conducted on a total of (N) 10,951 students from 8 countries. The measuring instrument used in the researches included in the meta-analysis was the FIT-Choice Scale (Factors Influencing Teaching Choice Scale).

Data processing

We used Comprehensive Meta Analysis v2 for introducing and codifying the variables, as well as for the calculation of the effect sizes, and Microsoft Excel 2007 from the Microsoft Office Suite for creating the tables and diagrams.

The data analysis included several phases.

In the first phase, we established the averages of the effect sizes, in order to verify that the effect size is greater than 0.

In the second phase, we transformed the correlations between intrinsic motivation and the factors related to career choice, respectively the standard deviations, into effect sizes.

The confidence interval was established at 95%. If the identified interval includes the value 0, then the association between intrinsic motivation and the factors related to career choice is not significant.

Effect sizes were calculated according to scholarly literature (Hunter & Schmidt, 1990), according to which the interpretation of the effect size is carried out in the following way: 0.2-0.5 – small effect size, 0.5-0.8 – moderate effect size, and above 0.8 – large effect size.

3.1.3. Results

In the first phase, we analyzed the effect sizes for the four factors related to career choice: abilities, working with children/adolescents, shaping the future of children/adolescents, and satisfaction with career choice for the total number of the subjects included in the researches.

The associations of the intrinsic value of the career with the four examined factors are moderate, with an effect size between 0.5-0.8. The highest association is with the perceived abilities (0.715, $p < 0.001$) and the lowest with the factor of shaping the future of children/adolescents (0.529, $p < 0.001$).

Regarding the detailed survey of the effect sizes for the intrinsic value of the career and the four chosen factors, we established that the results have a high threshold of confidence, since $p < 0,001$.

Effect size for intrinsic motivation related to the career and to perceived abilities

The meta-analysis for these studies regarding the correlation between the intrinsic value of the career and the perceived abilities of the students shows the value $r = 0.715$ $Z = 82.114$ ($p < 0.001$). The number of studies (n) that would have to be included in this analysis in order to change the effect size for $p < 0.05$ is 28,069, i.e. 1,754.3 studies for each analyzed study, in order for the effect to become 0.

Effect size for intrinsic motivation related to the career and working with children/adolescents

The meta-analysis for these studies regarding the correlation between the intrinsic value of the career and working with children/adolescents shows the value $r = 0.628$, $Z = 66,014$ ($p < 0.001$). The number of studies that would have to be included in this analysis in order to change the effect size for $p < 0.05$ is 17,002, i.e. 1,133.5 studies for each analyzed study, in order for the effect to become 0.

Effect size for intrinsic motivation related to the career and shaping the future of children/adolescent

The meta-analysis for these studies regarding the correlation between the intrinsic value of the career and working with children/adolescents shows the value $r = 0.529$, $Z = 45.791$ ($p < 0.001$). The number of studies that would have to be included in this analysis in order to

change the effect size for $p < 0.05$ is 5,994, i.e. 544,9 studies for each analyzed study, in order for the effect to become 0.

Effect size for intrinsic motivation related to the career and satisfaction with career choice

The meta-analysis for these studies regarding the correlation between the intrinsic value of the career and working with children/adolescents shows the value $r = 0.648$, $Z = 48.477$ ($p < 0.001$). The number of studies that would have to be included in this analysis in order to change the effect size for $p < 0.05$ is 6,108, i.e. 610.8 studies for each analyzed study, in order for the effect to become 0.

3.1.4. Discussion and conclusions of the study

As shown by the meta-analysis, the association between the intrinsic value of the career and the factors related to the career choice for students bound to become teachers is moderate for all four studied factors.

The association of the intrinsic value of the career with the perceived abilities shows the highest value among the chosen factors, at 0,715 ($p < 0,001$). This moderate association is significant, since it indicated that the strongest factor in choosing teaching as a career is strongly associated with recognizing and becoming aware of one's abilities, as well as with identifying the abilities necessary for following the teaching career. Recognizing and developing the students' abilities related to this occupation is necessary throughout the entire course of their university studies, in order to obtain at least satisfying results in using the learned teaching methods and procedures as well as for their implementation in pedagogical practice. The use of these abilities will later ensure the performance necessary for teaching as a career.

The association between the intrinsic value of the career and working with children/adolescents shows the value 0,628 ($p < 0,001$), i.e. a moderate association for students bound to become teachers. We consider this association as significant, since it has a high share in the career choice. Teachers know the age characteristics of their pupils, the tasks they are capable of solving, and the methods for activating and helping them in their own development.

The association between the intrinsic value of the career and shaping the future of children/adolescents shows the value 0,529 ($p < 0,001$), i.e. the smallest value among the analyzed factors. This moderate association can nevertheless be interpreted as significant, since it means that the students who choose to become teachers want to influence the future of their pupils and to help them along in their personal development toward self-fulfillment and the realization of their preferences and desires.

The association between the intrinsic value of the career and career choice satisfaction shows the value 0,648 ($p < 0,001$), i.e. a moderate association. This means that students bound to become teachers become aware of the importance of choosing one's occupation already in their adolescence or at the beginning of their adult life, they pay attention to intrinsic motivation when choosing their career, and turn toward areas in which they can fulfill their associated needs and satisfy their most important motivations. Consequently, this result can be considered as significant.

The results show that, although there are cultural differences between the research subjects involved in the meta-analytic study, the most important factors determining the career choice of teachers are related to intrinsic motivation.

As such, my conclusion is that the meta-analysis fulfilled its purpose.

3.1.5. The limits of the research

There was a large number of studies excluded from this meta-analysis, especially due to the lack of sufficient data for calculating the effect size, since the inclusion criteria were quite strict. Thus, only 13 studies were included in the meta-analysis.

The studies included in the analysis do not allow for the clear determination of the level at which the student will teach, since the teaching levels were not sufficiently specified, or the studies did not present separate data for the different levels of teaching. I was primarily interested in students who will become primary and preschool teachers, but the studies very rarely included separate data for this category, preferring instead to consider jointly all levels of teaching. Even when teaching levels were specified in the description of the research subjects, statistical data were not separately presented for each category.

3.2. Study 2a. Study to validate the scale entitled Factors Influencing Teaching Choice Scale, adapted to Hungarian

The program of research of the factors influencing teaching choice (FIT-Choice program, www.fitchoice.org) was started in 2001 by Watt and Richardson in Australia, for two reasons: on one hand they were intrigued by the fact that some people would change their good career with high status, financially profitable with that of teaching and they wanted to understand this phenomenon; on the other hand, they explored the motivation of those who choose teaching as a career (Watt & Richardson, 2012). The standardized form of the scale was finalized in 2004, modifying the previous version by removing a few items which were considered less important and repetitive, and they introduced three new items to higher the number of items in the factors (Richardson & Watt, 2006; Watt & Richardson, 2007).

This scale stays at the core of the present study.

3.2.1. Objectives, methods, procedures

The main objective of the study is the adaptation of the FIT-Choice Scale to Hungarian, analyzing at the same time the motivation of the career choice of the students from PIPP. The general hypothesis is that the scale maintains the favourable characteristics in the context of a post-communist country, minority region, even though there will be differences derived from the cultural context. The specific hypotheses are:

1. The scale maintains its favourable characteristics (Cronbach alpha raised for the majority of the factors of the scale).
2. There are evident differences in perceiving career choice as a vocation or the possibility of making a career while studying, meaning that in the first year students usually choose it as a vocation or the chance to make a career.
3. There are significant differences in the perception of the positive feedback from children in the Partium and Secklers' Land region.

Participants

To obtain a valid scale a number of 259 students were involved and 414 scales were delivered. 259 scales were returned and 3 were excluded as being incomplete. The participants are students of the preschool and primary school teacher training section of different Romanian universities, learning in Hungarian. From the 259 subjects 85 students are freshmen, 77 students are in their second year of study and 97 are in their third year of study. The great majority are women (98%) and only 5 are men (1.93%) which is below the limit of 5%, so we can not draw conclusion based on sex differences. 204 (78%) of the subjects study in full-time

mode and 55 (21,2%) in distance study mode. The age range of the students is between 18-52, the average age limit for the freshmen being 22,92 years (n=79) and for the full range of subjects being 23.67 years (N=251). Participation in the survey was voluntary.

Instrument: Factors Influencing Teaching Choice Scale

The scale delivered by Richardson and Watt (2006; Watt & Richardson, 2007) contains multiple parts: Demographic data, the request for the indication “Please, motivate shortly the main reasons for becoming a teacher”, part B – Influencing factors, part C – Beliefs about teaching, part D – Personal decision to become teacher. (Richardson & Watt, 2006; Watt & Richardson, 2007)

Part A – Demographic data and presentation. The part with the demographic data contains the name, sex, age, year of study, number of children, highest level of qualification, mother-tongue and some details concerning their parents: country of birth of the parents, highest level of qualification, present job and combined yearly income. The presentation part contains a fragment about the motivation for the teaching career choice, requesting the main reason for this choice: “Please, motivate shortly the main reasons for becoming a teacher”.

The presentation part and part B refer to the importance of some factors in the decision of some individuals to become teachers. This part originally contained 52 items, 16 of them being deleted leaving the original sequencing unaltered. The foreword for the items about motivation was “I chose to be a teacher because...”, written with capital letters at the top of each page. This part contained 13 factors: abilities – the perception of personal abilities to become a teacher; the intrinsic value of the career; the back-up/secondary career; safety at workplace; family time; the possibility of delegation of work; the easier way possibility; shaping the children’s/adolescents’ future; raising social value; social contribution; work with children/adolescents; previous experience in teaching/learning; social influence. During the standardization, after the analysis of factors the family time and the easier way possibility were combined into family time, leaving 12 factors in the motivational part. Two more items were introduced for the shaping the children’s/adolescents’ future part and the raising social value part. Some of these factors are organized into ones of superior level: the value of self-utility (security at workplace, family time, the possibility of delegation of work; the easier way possibility), the value of social utility (shaping the children’s/adolescents’ future; raising social value; social contribution; work with children/adolescents. Part B contains items that can be evaluated through multiple indicators, with a possibility for answers from 1 (“not important”) to 7 (“very important”).

Part C – Beliefs about the profession - contains items related to job satisfaction. Originally there were 15 items, one being withdrawn, leaving the original sequencing unaltered. This part contained 5 factors: expert career; high stress; social status; teaching morale; good income. These factors are grouped into superior level factors: task requests (expert career; high stress), benefits of the task (social status; teaching morale; good income. During standardization the social status factor and the teaching morale were combined under social status name, part C being made up of four factors. For the expert career a new item was introduced. The items in part C can be evaluated through multiple indicators, with a possibility for answers from 1 (“I totally disagree”) to 7 (“I totally agree”).

Part D - Personal decision to become teacher – contains items discussing job satisfaction. This part contains 6 items dealing with the subjective decision of choosing this career, alongside with items dealing with advice to/not to choose this career. This part presents two factors: social dissuasion (advice from others not to choose this career) and the satisfaction of choice. The items in part D can be evaluated through multiple indicators, with a possibility for answers from 1 (“not true”) to 7 (“totally true”).

Validity and reliability were checked through several studies made on the population from different countries (Richardson & Watt, 2006; Watt & Richardson, 2007). The original scale was devised for Australians (Richardson & Watt, 2006; Watt & Richardson, 2007), and later applied to other English speaking regions: the United States, the UK, Ireland, then translated into German, Croatian, Dutch, French, Mandarin, Estonian, Turkish (Watt & Richardson, 2012).

Procedure

The aspect validity was based on the data gathered from the participants and specialists. The scale was translated with the help of the authors, and it was reformulated and adapted to the specific of the Hungarian language.

Content validity is achieved through the internal consistency and the Cronbach alpha (α) indices of the scale. The analysis of its factors and items is standardized by Richardson & Watt (2006; Watt & Richardson, 2007). The items that cannot be associated with the ones contained in the factor they are part of should be eliminated.

We suggest that the construct validity be analyzed through ANOVA.

The data were collected in the 2016/2017 academic year.

The FIT-Choice Scale was administered at the end of the classes by teachers at the aforementioned universities. The students were assisted by invigilators to help with explanations. All the students had to give their consent as well. The necessary time limit was roughly 20 minutes.

The obtained data were processed and analyzed with the aid of IBM SPSS 22 program, while Microsoft Office 16, Microsoft Excel and Word were used for the design of tables and diagrams.

The descriptive statistics and Pearson value were used for the comparison of the data. The level of significance is established at $p \leq 0,05$.

3.2.2. Results

Appearance validity

Factors Influencing Teaching Choice (FIT-Choice) Scale was translated into Hungarian. The appearance was preserved according to the original scale, proposed by H.M.H. Watt and P.W. Richardson through copyright, sent by them.

The translation was supervised by 3 people: a translator and teacher of the English language, having Hungarian as their native language, an educator and teacher of the Hungarian language and a psychologist. The Hungarian language scale has been retranslated into English for verification. The first version of the translated scale was applied to 36 students, who will become teachers.

After completion, interviews were conducted with the participants to establish the validity of the appearance. The evaluation of the questionnaires was also performed by two psychologists and two Hungarian language teachers.

Content validity

Content validity, which shows the internal validity of the sample of items that make up the scale, respectively the scale factors (with the motivations, perceptions and decision of the participants highlighted by these items).

The internal consistency was determined by calculating the Cronbach alpha (α) value, which varies between 0 and 1. The closer this value is to 1, the more consistent the scale is considered, the threshold of 0.90 being a high degree of reliability; 0.80 degree moderate to high; 0.70 being accepted as a low threshold; and 0.6 limit threshold (Neill, 2004).

The FIT-Choice scale in Hungarian shows the reliability of 0.809 (respectively 0.808, if we keep all the items) for the number of participants $N=259$. Cronbach alpha values for the original FIT-Choice scale factors in Hungarian for the number of subjects $N=259$ show values between 0.485 - 0.936, as follows: high degree of reliability, that is over 0.9 for the Good Salary factor; moderate to high degree, that is between 0.8-0.9 for the factors: Social Influence, Enhance social equity, Skills, Satisfaction with choice, Prior teaching and learning experiences, Time for family, Job security; low threshold, between 0.7-0.8 for factors: Work with children/adolescents, Forming the Future of Children/Adolescents, Social Status; limit threshold, above 0.6, shows the factors: Expert Career, Job Transferability, Make social contribution, Intrinsic Value of the Career. Below the limit threshold are the factors: Fallback career, High Demand.

Through statistical analysis we followed how the internal consistency of the scale changes. It has been found that by eliminating some items, the consistency of certain factors increases. As the authors of the scale recommend the elimination of some items, during the adaptation, due to cultural differences, we resorted to this method. In the case of The Intrinsic career value factor, Cronbach alpha equals 0.618, but if the item B7 is removed we reach a value of $\alpha=0.772$. This item B7 "I always wanted to become a teacher" is not necessarily associated with the intrinsic value of the career, it is more related to the desire to become a teacher since childhood. In the case of the Fallback career factor, Cronbach alpha equals 0.516, but we noticed that item B11 does not correlate with items B35 and B48 found in the same factor. Thus by removing this item we reach a Cronbach alpha of 0.634. In the case of the Social Status factor, Cronbach alpha equals 0.740, but we noticed that item C12 does not correlate with items C4 and C8 found in the same factor. By removing item C12 we reach a Cronbach alpha of 0.768. These lacks of correlation between items may be due to the equivocation transmitted by the respective items. In the case of the High Demand factor, the value of α equals 0.485, but the analyses show that by eliminating any item, this value will not increase.

Revision of the translation of the scale

Given the Cronbach α differences of the three items in the factors Intrinsic career value(B7), Fallback career (B11) and The Task return (C12) we resorted to reformulating the items.

The scale with the revised items was applied to students from different years of study and primary and preschool teachers between 2017-2020, $N=336$.

Item B7 "I always wanted to become a teacher" is not necessarily associated with the intrinsic motivation of the career, in the sense that the person feels good during activities related to this profession, it is more related to the desire to become a teacher since childhood. The characteristics of the Hungarian language make it possible to reformulate the original statement as follows: "Mindig is tanító/tanár akartam lenni instead of "Mindig tudtam, hogy tanító/tanár akarok lenni."

Item B11 "Határozatlan voltam abban, hogy milyen karriert akarok." was replaced by "Bizonytalan voltam abban, hogy milyen karriert válasszak.", and the question in C12 "Azt gondolja a tanítás tiszteletreméltó karrier?" was changed to "Azt hiszi a tanításról, hogy tiszteletreméltó munka?" especially because in Hungarian the notion of career has a connotation of something done successfully, but a job is considered successful only if the person becomes famous, becomes a leader or earns a great amount of money. In the case of the education system, a student can hardly identify the teaching profession in this respect with a career. The notion of a teaching career is used in the circles of qualified people, who know that any profession, or time spent in a certain occupation can be considered a career.

The Cronbach alpha values for the three factors affected by the items in question changed as follows: Social Status increased from 0.740 to 0.791, Intrinsic career value

increased from 0.618 to 0.679, Fallback career from 0.516 to 0.591. It is noted that the change of items B7, B11 and C12 did not bring a significant increase in the value of Cronbach alpha, but the reformulation of the items led to a smaller change in the Cronbach alpha value of the subscale, if the item in question is removed.

Because the reformulated items were verified by four specialists in the field, we believe that it was not the formulation of the statements/questions that led to low values of the reliability of the three factors.

The conclusions of the correction of the items are: the low values of Cronbach alpha were probably not a result of the formulation of the items, but the interpretation of these statements/questions represents special characteristics, related to the socio-cultural context of the participating students. Low values of these scales have also been found by other researchers. Watt and Richardson (2007) suggest the elimination of items of this nature for international comparison.

Construct validity

In order to examine the validity of the construct, we analyzed the relationships between the scale and the demographic variables (background, region of study, form of education, year of study).

The Exposure Part and Part B represent the motivational aspects of the participants.

The Exposure Part was a scored part, where students could write freely (without any list or hint) the reason for choosing the profession, following the indication: "Please briefly state your main reason(s) for choosing to become a teacher". In some cases, the answer was made up of a short sentence, i.e. a single reason, other times the whole space allocated to the answer was filled with reasons, reaching up to 5 of them. Through the analysis of the Exposure Part, we identified 12 categories of reasons, the most often mentioned in the choice of a teaching career being: love for children; they like to be with children; they like to take care of children; educating and developing children's skills; sees a career possibility in the profession, it is a vocation; receives positive affection, gets recharged by it, achieves positive results; this profession was their childhood desire, they considered this profession appealing; has the necessary skills; feels useful for the community, for society, influences future generations; helping children, emotional support; experience in this type of activity; has had a good previous example; is supported by family, teachers, friends; others (such as: delivering information, new teaching methods and techniques, creative, non-monotonous work, changing the education system in the future etc.)

The factor "receives positive affection, gets recharged by it, achieves positive results" has the value of $\chi^2=5.739$, which means that it is greater than 4.43, in which case it has an effect for $p \leq 0.2$. The threshold was set at $p \leq 0.05$, and this does not correspond. The situation is similar in the case of "childhood desire, appealing profession", where $\chi^2=5.246$, which is greater than 4.00 and in the case of "has the necessary skills", where $\chi^2=5.004$ is greater than 2.92, but in both cases the threshold p does not correspond to the established threshold $p \leq 0.05$. Therefore, there is no significant difference between mentioning the factors identified according to the educational unit.

The analysis of the difference of the factors identified with the study year does not correspond to the threshold established by $p \leq 0.05$. Thus, the values show that there are no significant differences depending on the years of study.

If we analyze the reasons for choosing the profession according to the study region, we can create two areas: Partium (N=98) and Szeklerland (N=161). The value of χ^2 shows that there is no significant difference between the factors identified according to the study region except for "receives positive affection, gets recharged by it, achieves positive results" ($\chi^2=5.184$, $p=0.023$), respectively "childhood desire, appealing profession" ($\chi^2=4.826$,

$p=0.028$). In the case of “receives positive affection, gets recharged by it, achieves positive results” shows the higher average for the Partium region (22.4% compared to 11.8%), while for “childhood desire, appealing profession” conversely, the higher value is shown in the Szeklerland region (18.0% compared to 8.2%).

Descriptive characteristics of the FIT-Choice scale (Scale of factors influencing the choice to be a teacher) on Part B, Part C and Part D

The descriptive analysis of the scale consists of two parts: the analysis of the original scale and the analysis of the final scale.

The averages of the factors of the original FIT-Choice scale for $N=259$ participants show that Work with children/ adolescents ($M=6.29$), Intrinsic career value ($M=5.95$) and Satisfaction with choice ($M=5.95$), respectively the perception of the career as an Expert career ($M=5.94$), followed by Abilities ($M=5.54$) have the highest values. The lowest values are presented by Fallback career ($M=2.77$), Good Salary ($M=1.66$), respectively Job Transferability ($M=3.58$) and Bludging ($M=3.88$). The averages of the higher order factors for the original scale show that the highest averages besides the Intrinsic career value and Satisfaction with choice, are Task demand ($M=5.71$) and Social utility value ($M=5.70$), followed by Abilities. The least scoring, besides Fallback career are Personal utility value ($M=4.15$) and Task return ($M=4.17$), respectively Social dissuasion ($M=4.31$).

The averages of the final FIT-Choice scale for $N=259$ participants show that Time for family ($M=4.37$) and Social status ($M=4.99$) have values above that of the average of the scale, and averages of higher factors Personal utility value ($M=4.15$) and Task return ($M=4.43$) as well. The averages of the motivations show that the order of the factors with the highest averages remains the same, which is: Work with children/ adolescents ($M=6.29$), Intrinsic career value ($M=5.95$), Shape future of children/ adolescents ($M=5.79$) and Abilities ($M=5.54$). Likewise, the lowest score remains that of the factor of Fallback career ($M=1.66$), followed by Job transferability ($M=3.58$). The only difference is that Time for family ($M=4.38$) rises above the average value of 4, along with Job security ($M=4.35$) and Prior teaching and learning experiences ($M=4.87$). The order of perception of the profession and of the does not change in the final scale either, with the career of a teacher perceived as an Expert career ($M=5.94$) having the highest score, requiring High demand ($M=5.48$), with a higher recognition of Social status ($M=4.99$), because the average is above the average value of 4. The lowest average remains the Good salary ($M=2.77$) factor. The participants are satisfied with the choice made, they are satisfied with the choice of a teacher career ($M=5.95$).

The confirmatory factor analysis of the FIT-Choice scale confirmed the 14 factors, which cover 66.212% of the items with Eigenvalues maintained over 1 (1.052), with the extraction method analysis of the main components. The KMO and Bartlett's test of sphericity had a value of 0.827, with Chi square approx. 7954.048 ($df=1653$, $p=0.000$). The 14 factors describe the scale factors, only B11 was not part of the factor predetermined by the authors (it was shown to belong to the Time for family factor).

Factor reduction factor analysis for Part B resulted in seven factors (instead of the 12 on the scale), which we named: Skills and Intrinsic motivation, Extrinsic motivation and Profession-specific appeal, Altruistic motivation to help people/community, Influence of previous learning experiences, Secondary career, My choice or that of others, Faith in the profession. For part C received four factors, covering 60.439% of the items, which we named: Beliefs about the skill needed for the profession, Beliefs related to teachers' requests, Social status, Teachers' morale. For part D we received two factors, which cover 70.305% of the items, the factors being made up of items identical to those in the initial scale.

External validity

To establish the validity of the factors presented in the scale we correlated the scales with each other, to see if the results are similar to those presented in previous studies, used in other languages in which the FIT-Choice has been translated before. The obtained results support the fact that there is a significant correlation of 0.680 at $p \leq 0.01$ between the Intrinsic career value and Satisfaction with choice ($N=259$), respectively a significant correlation of 0.523 ($p \leq 0.01$) between Job security and Time for family $r=0.558$ ($p \leq 0.01$) between Job security and Job transferability, $r=0.524$ ($p \leq 0.01$) between Job security and Social status, $r=0.519$ ($p \leq 0.01$) between Time for family and Job Transferability, $r=0.546$ ($p \leq 0.01$) between Enhance social equity and Make social contribution, and $r=0.560$ ($p \leq 0.01$) between Work with children/ adolescents and Satisfaction with choice.

If we look at the correlation between the FIT-Choice subscales and the higher order factors of the scale, we notice that the Personal utility value and Social utility value, respectively the Task demand correlates only with the subscales of which they are composed. Thus, the Personal utility value correlates with Job security ($r=0.803$ at $p \leq 0.01$), with Time for family ($r=0.806$ at $p \leq 0.01$), and with Job Transferability ($r=0.790$ at $p \leq 0.01$). The Social utility value correlates to Shape future of children/ adolescents ($r=0.781$ at $p \leq 0.01$), with Enhance social equity ($r=0.818$ at $p \leq 0.01$), with Make social contribution ($r=0.791$ at $p \leq 0.01$), and with Work with children/ adolescents ($r=0.676$ at $p \leq 0.01$). The Task demand correlates with Expert Career ($r=0.820$ at $p \leq 0.01$) and with High Demand ($r=0.821$ at $p \leq 0.01$). The higher order of factor Task return, however, apart from the subscales of which it is composed (Social status with $r=0.872$ at $p \leq 0.01$ and Good salary with $r=0.450$ at $p \leq 0.01$) is also significantly correlated with Job security ($r=0.524$ at $p \leq 0.01$). Among the other subscales, correlation values are lower than 0.5.

3.2.3. Discussions and conclusions of the study

The aim of the research was to validate the FIT-Choice scale and adapt it according to the Hungarian language.

Most of the participants were female students, showing the lack of the male role model for children at an early age. The average age was 23.67 years, older (up to 52 years) being those who are already working in education, but are completing their studies (in the form of full-time or distance education). Hungarian was the predominant language spoken at home, with both the participants and their parents being born and living in Romania. Less than half of the subjects did not declare their parents' earnings, most of those declared are in the average salary category.

The validity analysis was performed by calculating the internal validity of Cronbach alpha and performing a factor analysis to identify the main constructs. The results show that the translated device has good psychometric properties, so it can be used in future studies. For the scale, the validity of the questionnaire was calculated for the first year students, as well as for the other years of studies, respectively for the whole group of subjects. The questionnaire has three items, which are interpreted somewhat differently in this cultural context, leading to confusion. In the case of two factors, the validity values in year I. show a difference compared to years II. and III. of study, namely in the case of the Job security factor - the internal validity of the scale in year I. is lower than in the other years, respectively in the case of the High Demand factor - the internal validity of the scale in year I. is higher than in the other years of study.

Cronbach alpha values show values between 0.745 and 0.936, for 4 subscales between 0.625 - 0.697 (Make social contribution, Job Transferability, Social dissuasion and Expert career), the lowest being for the Fallback career ($\alpha=0.516$) and High demand subscales

($\alpha=0.485$). We believe that the low value α for these subscales is explained by the cultural differences in understanding the items of this scale.

Cronbach alpha is greater than 0.6 for all factors, except Social status and High demand. Gratacós and López-Jurado Puig (2016) found the High demand factor having the same value 0.6 (of $\alpha=0.589$), and there are some studies in which the α value of this scale does not appear at all.

The hypothesis that the scale maintains its properties, being able to be applied in the minority context also seems to be true, but we notice that there are differences of interpretation derived from the cultural context specific to the sample.

Thus hypothesis 1. "The scale maintains its favorable properties, i.e. Cronbach alpha is high for most scale factors." has been proven (12 subscales with a value of α between 0.745 - 0.936, 6 subscales between 0.6 - 0.7), in the case of the Fallback career subscale (α is between 0.5 - 0.6), less so in the case of the High Demand subscale (α is between 0.4 - 0.5).

Hypothesis 2. "There are significant differences in the choice of profession as a vocation or perception as a career opportunity between years of study, in the sense that year I. chooses a career more out of vocation or perceived career opportunity." did not prove true, because we did not find significant differences between the year of study related to the perception of the profession as a career or vocation.

"There are differences in the perception of positive emotions between the Partium and Szeklerland regions." was the third hypothesis, which seems to be proven, since we found a significant difference between the factors identified according to the study region at "receives positive affection, gets recharged by it, achieves positive results". A secondary result is that we found a significant difference between the Partium and Szeklerland regions in the factor identified "childhood desire, appealing profession", in the sense that several Szekler students choose the profession because it was their desire since childhood, respectively they consider it an appealing profession.

The results related to the highest scoring motivations in part B of the scale are in concordance with the results found by Richardson and Watt (2006), even the lowest scoring Fallback career, but in the case of the other factors, there is a small difference.

The results of the scale related to perceptions of the profession (part C) and personal decision (part D) are in line with the results of Richardson and Watt (2006), because they also found that the profession is perceived as one of experts, with a low benefit. Our result is interesting, since the salary should be related to the social status, i.e. if the perception of the remuneration is low, it should be related to the perception of the social status as a lower scoring one. Unlike the data of the other studies already mentioned, our respondents appreciate the high social status of the profession, despite the fact that the remuneration is perceived as low.

We found a significant correlation between the Intrinsic career value and Satisfaction with choice ($r=0.680$ at $p\leq 0.01$), which shows that students with a high Intrinsic career value are satisfied with the choice of a teaching profession. The significant correlation between Job security and Time for family ($r=0.523$, $p\leq 0.01$) shows that the more secure the person feels at their workplace, the more they can focus on their family. To explain the significant correlation of Job security with Job Transferability ($r=0.558$, $p\leq 0.01$) future studies are needed, since we do not see the reason behind this association. The significant correlation between Job security and Social Status ($r=0.524$, $p\leq 0.01$) can be explained by the fact that if the person perceives the workplace as safe, with a secure income, then they have a stable social status, respectively the perceived social status brings confidence in the workplace. We consider that the explanation of the correlation between Time for family and Job Transferability ($r=0.519$, $p\leq 0.01$) requires further investigation. The significant correlation between Enhance social equity and Make social contribution ($r=0.546$ $p\leq 0.01$) is explained by the feeling that by supporting, helping children from disadvantageous social backgrounds, they contribute to the well-being of society,

repaying what they received from society. The correlation between Work with children/adolescents and Satisfaction with choice ($r=0.560$ $p\leq 0.01$) shows that if the desire to work focused on children is fulfilled at a higher grade, respectively the pleasure of this, then the satisfaction and joy related to the choice made increases.

3.2.4. Research limits and future research directions

The limitations of the study come from the fact that out of the 414 questionnaires delivered, only 262 were completed, although the number of questionnaires delivered would have covered more than 2/3 of the current students at the Pedagogy of Preschool and Primary School Education (PPPSE) profile at the Hungarian department. The increased number of people could make the measurements more accurate, as only about half of the students in the Hungarian departments of the universities in the profile Primary and Preschool Pedagogy in the country in the academic year 2016/2017 took part in the research.

It is recommended to check the internal fidelity of the scale through a longitudinal study.

3.3. Study 2b. Study of the change of motivation related to a teacher's career, longitudinal study

The fidelity of a scale can be verified by a longitudinal study, which involves measuring the phenomenon with this tool at successive points. According to the recommendations of Richardson and Watt (2006) we chose to use the FIT-Choice tool after about two and a half years - 3 years on the same population on which it was initially used. Thus, if it was first used on a student in the autumn of their first year of studies, at the beginning of their studies in this profile, then the second test should be done in their third year in the spring, before completing their studies. The specialized literature talks about leaving the teaching profession in the first five years of work, that is why we thought to verify the changes related to the career motivation in these years. Thus, we tried to get in touch with all the 259 former students in the academic year 2016/2017 to verify the retention of the values of the FIT-Choice scale in the years 2019-2020.

3.3.1. Objectives, hypothesis, method and procedure

The main objective of the study is to verify the retention of FIT-Choice scale scores after two and a half years - three years from the first application.

Hypothesis: The scale maintains its favorable applicability properties in the long-term, there will be no significant differences between the two measurement points.

Participants

In this study the third year students, respectively the former students of the universities were contacted, who, at the initial testing, in the academic year 2016/2017 studied at the Pedagogy of Preschool and Primary School Education (PPPE) profile of the four institutions. Of the 259 participants at the initial application of the scale, 98 responded.

The participants numbering $N=98$ had an average age of 27.28 years ($SD=7.302$), aged between 22 and 55 years, with 60 people from the Partium region, and 38 people from Szeklerland.

Procedure

In the academic year 2016/2017 we applied the scale to students of the Pedagogy of Primary and Preschool Education profile, at the Hungarian department of four institutions in Transylvania. The FIT-Choice scale was distributed by professors, at the end of their classes in paper - pencil form, with the students being assisted by supervisors for possible clarifications. Participants were notified for consent. The completion time was about 20 minutes.

In the academic year 2019 - 2020 we applied the FIT-Choice scale to the participants who responded to our request for recompletion. We used the online form of the scale, the application used was Google Forms, without a time restriction, anonymously, voluntarily. Participants were informed about the use of demographic data and data confidentiality. The completion time was about 20 minutes.

Data processing

The data processing was performed using the SPSS 22 program, as in 2017, the tables being executed in Microsoft Excel 2016 and Microsoft Word 2016.

Descriptive statistics and Pearson value were used to compare the data. The significance level is set at $p \leq 0.05$.

3.3.2. Results

To test the retention of scores in the two points of the test we used the T test both for the factors of the FIT-Choice scale and in Part A, where the answers analyzed by content analysis were recorded.

The Cronbach alpha for the FIT-Choice scale according to current measurements is 0.806. It is interesting that the reliability of the Fallback career subscale ($\alpha=0.621$) and the Intrinsic career value is low ($\alpha=0.576$), and for High demand and Social status it is still below 0.5, but still above the threshold of 0.4. The rest of the subscales show Cronbach α from moderate to high, with values from 0.703 to 0.958.

The Cronbach alpha values of the FIT-Choice scale for the two measurements (from the academic year 2016/2017 and the years 2019 - 2020) show values between $\alpha=0.537$ and $\alpha=0.859$. The Cronbach alpha values change for the two measurements, each value rising above 0.5.

The average values of the factors are as follows: the highest values show Work with children/ adolescents (M=6.48), Expert Career (6.34), Intrinsic career value (M=6.26), Shape future of children/ adolescents (M=6.02), Satisfaction Related to the Career (M=6.00), High Demand (M=5.93), Skills (M=5.84), Make social contribution (M=5.76), Enhance social equity (M=5.57), Prior teaching and learning experiences (M=5.16), Social status (M=5.05), Social influence (M=4.90), Time for family (M=4.52), Teacher morale (M=4.51), Job security (M=4.33), Social dissuasion (M=4.31). The lowest values are shown by the Fallback career (M=1.89), Job transferability (M=3.46), Good salary (M=3.49), and Bludging (M=3.58) factors.

The results show that there are significant differences in Abilities $t=-2.890$ ($p=0.005$), Intrinsic career value $t=-2.848$ ($p=0.005$), Fallback career $t=2.401$ ($p=0.018$), Bludging $t=2.136$ ($t=0.035$), Enhance social equity $t=-2.556$ ($p=0.012$), Expert career $t=-3.304$ ($p=0.001$), High demand $t=-2.704$ ($p=0.008$), Teacher morale $t=2.084$ ($p=0.040$), respectively at the higher order factor Task demand $t=-3.677$ ($p=0.000$).

The results show that there is a significant correlation between FIT-Choice subscales, for the confidence threshold of $p \leq 0.01$, in the case of the following factors: Intrinsic career

value and Satisfaction with choice ($r=0.665$), Job security and Time for family ($r=0.601$), Bludging and Time for family ($r=0.667$), Social Status and Teacher morale ($r=0.813$).

3.3.3. Conclusions and discussion

The main objective of the study was to verify the retention of FIT-Choice scale scores after two and a half years - three years from the first application, with the hypothesis: The scale maintains its favorable applicability properties in the long-term.

There are no big differences in the Cronbach alpha values from the first to the second measurement, the subscales that had a low reliability in the first measurement also show a low reliability here, despite the fact that the items that did not correlate with the subscale they belong to have been reformulated. We explain these low values with the connotations related to the terms used in the respective items through the socio-cultural particularities. As the authors suggest, these items can be ignored, but we believe they have statistical value.

The results show that there are significant long-term differences between the two measurement points, regarding: Abilities, Intrinsic Value of the Career, Fallback career, Bludging, Enhance social equity, Expert career, High demand, Teacher morale, respectively the higher order factor Task demand. These differences could originate from the different perception of the factors in terms of work, meeting other people in the field of work, they end up appreciating themselves less, thus the Abilities have a lower value than at the first measurement. At the same time, the Intrinsic career value has decreased compared to approx. three years earlier, respectively Enhance social equity, which, in time, can lead to such a serious decrease in motivation so as to result in leaving the education system. On the other hand, the motivation of Fallback career and Bludging through this career increased significantly. Nevertheless, the perception of the profession being an expert and demanding career, respectively the higher demand of tasks shows that the participants still consider that they invest more in this career than they benefit. Surprisingly, these changes in people's motivations can already be seen in the first two years of work.

It should be mentioned that some of the data were collected during the COVID-19 pandemic, since that marked the 2 and a half - 3 years point from the first measurement. Thus the results can be explained partly from the point of view of socio-cognitive events that occurred during that period.

3.3.4. Research limits

The results can be misleading, since of the 259 subjects who initially took part in the first measurement, only 98 responded to the request for a repeated completion of the FIT-Choice scale. This number representing only about one-fifth of the former students in the Pedagogy of Preschool and Primary School Education (PPPE) profile in the 2016/2017 academic year.

Some of the results were collected during the COVID-19 pandemic, and socio-cognitive affections can influence the results received.

We consider the study important from the point of view of following the phenomenon in the long-term.

3.4. Study 3 Aspirations index validation study, adapting to the Hungarian language

Kasser and Ryan (1993) developed the scale called Aspirations Index to test the self-determination theory of Deci and Ryan (1985a; Ryan & Deci, 2000a), which helps us in assessing people on the values propagated: human values and mental and physical health. Through this questionnaire we can explore the most general intrinsic and extrinsic motivations, formulated as aspirations, life goals. The results of the questionnaire can be generalized, being independent of gender and socio-cultural factors (Ryan, și alții, 1999).

According to Frost and Frost (2000), financial success is significantly more important for Romanian students than for Americans, although Romanians believe to a lesser extent that it is difficult to achieve this goal. For Romanians, self-acceptance is the most important factor, followed by affiliation, then financial success, (then) the latter being (is) the feeling of community. This study also emphasizes that there is a discrepancy in the perception of the meaning of financial success, i.e. Romanians perceive financial success as something other than Americans, financial success for Romanians is related to power. For the American group, financial success means making money, and through it obtaining security (national security, security for their family). For the Romanian group, financial success means not only wealth, but is related to self-direction, i.e. to choose their goals independently. Thus, Romanians believe that financial success depends more on freedom and the ability to achieve success through their own means. Therefore, success means opportunity and the possibility of self-expression. Regarding the aspirations of the feeling of community, being a central aspiration in both groups, both Romanian and American students show a positive relationship with psychological well-being.

3.4.1. Objectives and hypotheses

The main objective of the study is to adapt the Aspirations Index to the Hungarian language, while analyzing the aspirations of students from the PPPE profile compared to other categories of people. To achieve this, we analyzed the appearance validity, the content validity and the construct validity of the index.

The general hypothesis is: The scale maintains its favorable properties after adaptation. Specific hypotheses:

1. Cronbach alpha values remain high after adaptation to Hungarian.
2. High School students are significantly driven by aspirations related to extrinsic motivations.
3. The aspirations related to the intrinsic motivation of teachers are higher than those of people working in other professions.

3.4.2. Methods and procedures

Participants

The validation of the index was performed with the involvement of a number of N=246 participants, belonging to four categories: high school students, university students, teachers, people with other professions.

The age of the subjects was between 16-65 years, on 8 age categories. Of the N=246 people, 87% were women (N=214), 13% men (N=32). According to the level of studies, the participants can be classified in four categories: with 8 classes (N=41), with baccalaureate (N=77), with university studies (N=123) and postgraduate studies (N=6). Regarding the environment of origin, approximately 33% came from villages, communes (N=80), 19% from cities with less than 100.000 inhabitants (N=48) and 48% from municipalities or cities over

100.000 inhabitants (N=118). Regarding the type of occupation, we established four categories: high school students (N=50), university students (N=69), teachers (N=79), other professions (N=48).

Tool: Aspirations

The Aspirations Index was developed by Kasser and Ryan (1996), including seven subscales, through five aspirations each. The subscales follow the extrinsic aspirations: Wealth, Fame, Image, respectively the intrinsic aspects: Relationships, Community, Personal growth. Health aspirations, i.e. physical fitness and health cannot be categorically associated with either extrinsic or intrinsic aspirations. The questionnaire has 35 aspirations, each with three forms of analysis: importance, probability and degree of achievement, thus resulting in 105 items. For the examination a scale of seven values is applied (1 - not at all, 4 - moderate, 7 - very much).

Demographic data pre-established by the developers refers to age, level of education, background (rural / urban).

The validity and reliability of this scale was followed by several studies on samples from different countries (e.g. Russia), the original scale being developed for the American population.

Procedure and data processing

This scale was distributed between volunteers, both on paper and online through Google Forms. The completion time was about 20 minutes. The data were collected between 2016 - 2020.

The original scale was downloaded from selfdeterminationtheory.org in 2015.

The appearance validity is based on the data obtained from participants and specialists.

The validity of the content is followed by establishing the internal consistency through the Cronbach alpha (α) index of the scale, respectively the analysis of the scale factors and its items.

We intend to follow the validity of the construct through the correlation between the scales and Anova.

The obtained data were processed and analyzed using the IBM SPSS 22 program, and for the creation of tables and diagrams Microsoft Excel 2016 was used, from the Microsoft Office package.

3.4.3. Results

Appearance validity

The scale was translated by a professional speaker of English and Hungarian, it was reformulated, adapting to the specifics of the Hungarian language. The translated scale was retranslated from Hungarian into English for verification, then the Hungarian version was applied to 30 students to verify the meaning of the items. The scale translated into Hungarian was reviewed by two professionals, two teachers and a psychologist, all speaking English and Hungarian on a native level. The original appearance of the scale has been preserved.

Content validity

Content validity, which shows the internal validity of the scale, refers to the sample of items that make up the scale, respectively the subscales of the scale (aspirations, importance, probability, reach, intrinsic aspirations and extrinsic aspirations).

The internal consistency was determined by calculating the Cronbach alpha (α) value, which varies between 0 and 1. The closer this value is to 1, the more consistent the scale is

considered, the threshold of 0.90 being a high degree of reliability; 0.80 degree moderate to high; 0.70 being accepted as a low threshold; and 0.6 limit threshold (Neill, 2004).

Cronbach alpha for the *Aspirations Index* is 0.964 for all items, and $\alpha=0.909$ for subscales, so it has a high degree of reliability. The Cronbach alpha values of the subscales are between 0.769 - 0.906.

Through the confirmatory factor analysis, the seven factors of the index were verified, with the analysis of the main components extraction method. The KMO and Bartlett's sphericity test had a value of 0.848, with Chi square approx. 25130.312 (df=5460, $p=0.000$). The 7 factors describe the aspirations of the scale very precisely, only Image is divided between several factors.

Construct validity

We analyzed the correlation between subscales with Pearson r and found correlations of over 0.6 between the Wealth and Image scales ($r=0.606$ $p\leq 0.01$), so there is a strong significant positive association; Personal growth and Health ($r=0.612$ $p\leq 0.01$), which means a strong positive association; and correlations of over 0.5 between the subscales Wealth and Fame ($r=0.509$ $p\leq 0.01$), which shows a strong positive association between the two aspirations; Fame and Image ($r=0.590$ $p\leq 0.01$), the association is positive, significant, strong; Personal growth and Affiliation ($r=0.554$ $p\leq 0.01$), a strong significant positive association; Personal growth and Community ($r=0.575$ $p\leq 0.01$), a strong significant positive association.

To test the equivalence of the groups, we ran the Levene test to test the assumption of homogeneity. In the case of six aspirations, the value of the Levene test is insignificant, so homogeneity can be assumed. For the Personal growth aspiration, the value of the Levene test is significant ($p=0.04$), which means that the homogeneity of the variations cannot be assumed. In this case, because it opposes Anova's assumption of variance in homogeneity, we examined the Welch value. We can say that there are no significant differences between groups even in the case of the Personal growth aspiration, because the Welch test shows $p=0.13$.

The One-Way Anova test shows differences between groups in the following aspirations: Wealth ($F(3.242)=6.238$ $p=0.000$), Fame ($F(3.242)=5.498$ $p=0.001$), Image ($F(3.242)=8.674$ $p=0.000$), Affiliation ($F(3.242)=3.606$ $p=0.014$), Community ($F(3.242)=6.860$ $p=0.000$), Total Extrinsic Motivation ($F(3.242)=8.993$ $p=0.000$), Total Intrinsic Motivation ($F(3.242)=5.739$ $p=0.001$).

The Post Hoc Bonferroni test shows that regarding the Wealth aspiration, high school students differ significantly from all three categories of work/occupation ($p<0.01$), i.e. high school students aspire most after Wealth, but there is no significant difference among the three other groups. Regarding the Fame aspiration, high school students differ significantly from the three other groups ($p<0.05$), the same happens in the case of the Image aspiration ($p<0.01$), i.e. this aspiration is more important for high school students than for the three other groups. At the Affiliation aspiration, high school students differ significantly negatively from university students and teachers ($p<0.05$), as well as in the case of the Community aspiration, high school students differ significantly negatively from university students and teachers ($p<0.05$). There are no significant differences between groups regarding the aspirations of Personal growth and Health. Extrinsic motivations are significantly higher in high school students than in the other three groups ($p<0.01$), and high school students have significantly lower intrinsic motivations than university students or teachers, but there is a significant positive difference between university students and people with other professions.

3.4.4. Conclusions and discussion

The main objective of the study was to adapt the Aspirations Index to the Hungarian language, while analyzing the aspirations of students from the Pedagogy of Preschool and Primary School Education (PPPE) profile compared to other categories of people.

To achieve this, we analyzed the appearance validity, the content validity and the construct validity of the index. General hypothesis: The scale maintains its favorable properties after adaptation, it seems to be verified, based on Hypothesis 1 “Cronbach alpha values remain high after adaptation to Hungarian.”, because the reliability of the scale was 0.964, and for the aspiration subscales it had values from moderate to high (between 0.769-0.906).

The confirmatory factor analysis verified the 7 seven factors of the index, which describe the aspirations of the scale very precisely, only the Image aspiration is divided between several factors.

We obtained strong positive correlations of over 0.6 between the Wealth and Image subscales, which means that appearances are more important for people who aspire for Wealth, respectively the aspiration for Wealth leads to the observation of appearances. The strong positive correlation between Personal growth and Health shows us that those who aspire for physical health are more appreciative and tend to strive for mental health. The strong positive correlations (over 0.5) between the Wealth and Fame subscales show us the importance of the link between financial and social success, as well as the correlation between Fame and Appearance. The strong positive correlation between Personal growth and Affiliation, respectively Personal growth and Community emphasizes the importance of relationships with other people.

The second hypothesis was “High School students are significantly driven by aspirations related to extrinsic motivations.” was proven true, because high school students have significantly more aspirations from extrinsic motivations than university students, teachers or people from other professions.

The third hypothesis: “The aspirations related to the intrinsic motivation of teachers are higher than those of people working in other professions.” was not proven true, as there is a significant difference only between the group of high school students and teachers, but there is no significant difference between teachers and people from the other categories.

3.4.5. Research limits and directions for further study

The adjustment of the index was done with only 246 people, from four types of occupation, it would require more participants to generalize the data obtained. It was very difficult to collect data from people with other occupations, because the completion was voluntary, without rewards, and the index has 105 items, which at first glance seems too many for people who do not work in education or psychology.

In the future, we could also analyze the moderate differences in the age of the participants, the level of education of the people who will participate in the study, respectively the background (urban / rural). The analysis of aspirations by importance, probability of achievement and degree of achievement would be indicated.

3.5. Study 4. Presentation of the motivation behind choosing teaching career, content analysis

Sinclair (2008) pursues to understand the motivations that push individuals towards the teaching career to become primary school teachers. The motivation explains why individuals choose the teaching career, it determines the period one remains in education and the degree to which one concentrates on their teaching and profession. In the literature Sinclair (2008) identified ten factors that attract individuals to choose this career - these are: love or desire to work with and for the benefit of pupils; altruism, or the tendency to make a difference in the community and society; the influence of others (family members, former teachers, or members of the wider community); perceived benefits and/or commodities of the profession (schedule, working hours, holidays, career and income security); “calling” to teach; love for teaching or the desire to spread knowledge; the nature of the teaching material (opportunities for creativity and interactions with others); the desire to change previous career (dissatisfaction with the previous career, or with a stressful life, unemployment or geographical relocation); easy entry to a training course or getting a teaching job; the status of career (and the opportunities of social advancement). Students who are to become teachers are attracted by their desire to work with pupils, they are guided by altruism, they are influenced by others and by the benefits this career might have for them.

Yüce et al. (2013), in Turkey, study issues related to individuals’ decision to choose teaching careers, their views regarding this career, and the major expectations they have. In the research, they used a questionnaire developed by them for the students. The motivations behind choosing this career are extrinsic, altruistic, and intrinsic, although the extrinsic and altruistic ones are higher since students take into consideration the social status and the good working conditions. Women had altruistic and intrinsic motivations for this career choice and they were influenced by extrinsic reasons, while men chose this career for extrinsic and remuneration-related reasons. Both men and women expect this to be a long-lasting career full of challenged and satisfaction.

Low et al. (2011) in Singapore studied the reasons for this career choice with qualitative methods among individuals taking part in teacher training programs. In Singapore members of the profession have been well paid, have a high status, and the Ministry of Education has provided many opportunities and incentives for promotion, professional development and other monetary and non-monetary rewards to prevent highly trained teachers from leaving the career. The qualitative method of measurement was the free answer to the following question: “What is the main reason they chose the teaching career?” The researchers decided to choose this method because respondents would recall the most important reasons, that is, they did not want respondents to choose from a given set of answers if these were not the main reasons for choosing the teaching career. Personal data was gathered: gender, age, level of education, previous jobs, whether any of the parents was a teacher, and who had had the greatest influence on their choice. The results of the research show that nine topics have been identified as major reasons which can be grouped into the three categories known in the literature: altruistic, intrinsic, and extrinsic ones. Altruistic reasons that were identified (41%): love for children/youth, desire to work with or teach children; to fulfill a mission, to develop children or to help them be successful; they wanted to contribute to society, they benefited from their education at their time; answered to a higher calling. Intrinsic reasons (55%) were: interest in teaching, a previous experience which made them feel accomplished and increased their interest in the career; the desirability of teaching including the nature of the job (e.g. the job is challenging, it supposes life-long learning, security), this job and the opportunities suit them; the inspiration of role models (former teachers, parents, other inspiring people); increased interest in a subject that they would like to share with students, the love for the subject.

Extrinsic reasons: financial reasons: the salary and the material rewards; the first step to a better career for which they need the skills and the knowledge they acquire in this training program.

Struyven, Jacobs, and Dochy (2012) studied the motivation of first-year students who were to become primary school teachers with the help of the Learning and Studying Questionnaire (paper-based questionnaire) based on reasons and expectations and two additional questions about free time and holidays and the balance between work and family life respectively. The results of 1805 students from Flanders, Belgium show that students' reasons for choosing the training program are intrinsic and altruistic: to develop the skills and acquire the knowledge they need in the chosen career, to attend interesting and well-wrought courses, to help children, to make a difference in the world, to develop on a personal level, etc. They have extrinsic motivation as well since they have to prove their ability to meet the university requirements. Women lay more emphasis on the development of skills and useful knowledge, on attending interesting courses, on personal development, on independence and self-confidence, and on the ability to balance work and family life. Men prefer the free time and the long holidays and the opportunity to have an active social life; they tend to question more often their choice of career.

3.5.1. Objectives and hypotheses of the study

We deem it is important to conduct qualitative research on career choice since the reasons to choose this career mentioned by the literature may lack some culture-related factors that have not yet been examined: education, culture, religion and social environment, the prejudice that may have appeared in intercultural studies and the fact that data from developed countries might be generalized.

The aim of the present study is the quantitative and qualitative examination of relevant data from 311 students and to investigate the reasons for choosing the teaching career using the classification by Bastick (1999, 2000a).

The hypotheses of the study are:

1. The common reason for choosing a teaching career is the love for children and the desire to be with them.
2. Teacher trainees in the Preschool and Primary Teacher Training programs have greater intrinsic motivation than extrinsic ones when choosing this career.

3.5.2. Participants

311 students participated in the research, they are trainees who are to become preschool or primary school teachers in Romania. The average age was 22.77 years and the age range was between 18 and 52 years. The survey was conducted at 5 different higher education institutions in the country.

3.5.3. Research methodology and process

Data collection took place between 2016 and 2018, the questions having been asked personally either orally during short interviews or in writing (on paper, through Google Forms, e-mail, or Facebook Messenger).

Participants - all students at the aforementioned institutions - were asked the following: "Why did you choose the preschool teacher/ primary school teaching career? Please indicate the reasons for your career choice."

The answers received through short interviews, or sent via e-mail, Facebook Messenger, or Google Forms have been coded for further analysis.

Through coding, the data were transformed in a standardized form in order to be analyzed and processed on the computer. The answers were coded manually by three different encoders. The data were analyzed systematically, repeated several times, then the categories and the codes were established having in mind, on the one hand, the manifest content, that is, the frequency of terms and wording; on the other hand, the latent content, that is data were coded according to the semantic content through the codes set in accordance with the designated aspects, all answers have been coded. During the coding process analytical procedures were used (summarizing, structuring).

Data were processed through IBM SPSS Statistics 22 and Microsoft Excel 2016, the tables were created in Microsoft Excel 2016 and Microsoft Word 2016.

3.5.4. Results

Using systematic analysis, within such a total N=311 answers, we have distinguished 608 items for which we have identified 25 codes (for the items that appear at least twice),

The most frequently cited reasons by students were the love for children (38.9% of the respondents), taking care of children (28.6%), transfer of knowledge (19.2%), recharging (14.8%), childhood dream / knew from childhood (12.9%), to be with children (10.3%), abilities (8.4%), emotional support for children/helping children (8.0%), calling (6.8%), educating children (6.1%), collaborate easily with children (6.1%), influencing the future generation (5.1%). It must be mentioned that “calling” was used with religious connotation in 6 cases (1.9%) of the 21 (6.8%), which means that religious faith influenced these respondents’ choices. 24.4% mentioned other reasons, such as role models (good/bad) (4.5/0.3% of the respondents), developing children (4.5%), previous experience (4.2%), social usefulness (4.2%), career (3.9%), the beauty of the profession (3.9%), others’ support (1.9%), “there is no other career for me” (1.9%), finding happiness (1.6%), holidays/free time (1.0%), changing the education system (0.6%), supporting pupils with special needs (0.6%). Interestingly, two students indicated that they did not want to become teachers (0.6%) even though they had enrolled in teacher-preparation programs. 20.2% of respondents gave single answers (63 altogether), exhibiting various views regarding this profession, children, attitudes, motivation, and individual aspiration, etc.

Following factor analysis, we distinguished 14 factors of the total answers. Thus, the factors (named by us) are childhood dream/desire, personal and social usefulness, emotional recharge, transfer of knowledge and teaching children, choosing the easy path (holidays, they do not want to become teachers), influencing the new generations through education, focusing on children (love for children, taking care of children, developing children), the prospects of a career (subfactor: “I cannot imagine another career”), calling, to take advantage of the time spent with children (to receive love from children, to get along well with children), supporting children, experience and abilities, the beauty of the profession and previous role models, support from others.

Through classifying the reasons in the three groups of motivation - based on the categorization by Bastick (1999, 2000a): intrinsic, extrinsic, and altruistic - we can see that the respondents had mainly intrinsic reasons (mentioned 339 times) for choosing this profession, followed by altruistic reasons (121), and few extrinsic reasons (9).

3.5.5. Conclusions and discussion

Our aim in this study was to analyze the data collected from 311 students and to investigate the reasons they chose teaching careers for.

Factor analysis distinguished 14 factors from the total number of answers, thus the factors (named by us) are: 1. childhood dream/desire, 2. personal and social usefulness, 3. emotional recharge, 4. transfer of knowledge and teaching children, 5. choosing the easy path (holidays, they do not want to become teachers), 6. influencing the new generations through education, 7. focusing on children (love for children, taking care of children, developing children), 8. the prospects of a career (subfactor: "I cannot imagine another career"), 9. calling, 10. to take advantage of the time spent with children (to receive love from children, to get along well with children), 11. supporting children, 12. experience and abilities, 13. the beauty of the profession and previous role models, 14. support from others.

The first hypothesis was: The most common reason for choosing a teaching career is the love for children and the chance to be with them - it proved to be right because the greatest percentage of the answers mentions love for children (38.9%), and the item "to take care of children" was the second most common reason for choosing the teaching career (28.6% of the respondents named this item).

The second hypothesis was: Students in the teacher training programs have significantly more intrinsic reasons to choose this career than extrinsic ones - based on the results of the research, it has been proved. These results are in line with previous research by Brookhart and Freeman (1992), Bastick (2000a), Bruinsma and Jansen (2007), the TALIS 2008 report, Struyven et al. (2012), Menzies et al. (2015), Yoshida (2016), Spear, Gould, and Lee (2000), and the conclusions of Heinz (2015). Thus, the results of the study on Hungarian minority in Romania are in line with results from Australia, Canada, the USA, the Caribbean islands, Hong Kong, Japan, Ireland, UK, Norway, Belgium, and Slovenia. The results are in contradiction with the results of research by Bastick (1999), Weiss and Kiel (2013), Yüce, Şahin, Koçer and Kana (2013), Fokkens-Bruinsma and Canrinus (2014), as well as Heinz (2015) from Brunei, Jamaica, Malawi, Zimbabwe, the Netherlands, Germany, and Turkey where the extrinsic reasons, especially the ones referring to pay and social status, are the primary reasons for choosing the teaching profession.

3.5.6. Limitations of the research and suggestions for further research

The limitations of the research are, on the one hand, the difficulty to encrypt answers, having taken a long time; on the other hand, the inequality of the respondents' answers because some participants mentioned only one reason, while others identified seven reasons at most.

Another limitation of the research is that we could not make an assessment based on age due to the major differences between age groups as far as the completion rate of the survey is considered.

Further research could be conducted among a greater number of responding students. Further research could be done in terms of comparison of reasons for choosing the teaching career between those of preschool teachers and primary school teachers. Furthermore, the reasons for staying in the profession.

The present data could be coded according to the twenty factors of the FIT-Choice scale and compared with our previous studies.

3.6. Study 5. Personality traits of Preschool and Primary School Teacher Training Programs

This study aims to reflect on the possible profile of the teacher, on the traits and characteristics of individuals who are enrolled in this university program, and associating personality traits with reasons for choosing the teaching career. The research is conducted to check if students enrolled in this program, and who are members of the Hungarian minority community in Romania, showcase the characteristics described in the international literature.

Personality traits are the basis of choices made as far as all aspects of life are concerned, thus regarding career choices as well. Having studied students' motivation behind their career choice, we would like to make a portrait of the student based on the personality traits.

Mooradian and Swan (2006) claim that personality traits describe the national character. On a sample of respondents from 11 countries on 5 continents, they found that extroversion and trust in word-of-mouth are associated. They found the dimensions of the ecological culture of Hofstede (2001) predictive of extroversion at a national level.

Allik (2005) studied the transferability of scales of personality traits based on the research that have been conducted in the field. The researcher came to the conclusion that the majority of the personality tests studied (Eysenck's Personality Questionnaire, Big Five, Revised NEO Personality Inventory, Rosenberg's Self-Esteem Scale) can be converted to various languages and cultures through the results can be contradictory (e.g., Revised NEO Personality Inventory), while McCrae et al. (2010) examined the personality traits of 5109 individuals on a cultural level in 24 different cultures and 18 languages. They noticed that the overall scores can be generalized in terms of age, gender, groups of connections and show convergence with previous studies.

Caprara et al. (Caprara, Barbaranelli, & Livi, 1994; Caprara, Barbaranelli, Borgogni, & Perugini, 1993) described the construction and validation of the Big Five questionnaire adapted to the Italian population. They started from the concepts describing personality as presented in the New Italian Dictionary; following factor analysis they found five factors. The factors are conscientiousness, extroversion, calmness versus irritability (in connection with emotional stability), selfishness versus altruism, and conventionality (in connection with openness to experiences). These are in correlation with the Big Five dimensions; thus, extroversion and conscientiousness corresponded to those in Big Five, conventionality negatively correlated with openness and agreeableness, calmness and selfishness with emotional stability, while calmness positively correlated, and selfishness negatively correlates with agreeableness. They concluded that Big Five can be extended to the Italian lexicon with slight modifications though: extroversion and conscientiousness being the strongest factors, followed by calmness and selfishness, variations of agreeableness/hostility, and stability/neuroticism, the weakest factor being openness (conventionality).

David, Iliescu, Matu and Balaszi (2015) conducted a research that examined the national psychological profile and the personality of Romanians, based on the Big Five model, on a representative sample, and found two profiles through cluster analysis: "Factor X-" with high value in the dimensions of neuroticism and low one of extroversion, openness, agreeableness and conscientiousness; and "Factor X+" with a low value in the dimension of neuroticism and high one of extroversion, openness, agreeableness, and conscientiousness.

3.6.1. Objectives and hypotheses

This study aims to analyze and identify the personality traits of Pedagogy of Preschool and Primary School Education (PPPE) profile students and the analysis of the correlation between BFQ tools and the FIT-Choice scale factors to identify the relationship between personality dimensions and the factors that influence the choice of teaching career.

The hypotheses of the study are:

1. Personality traits connected to intrinsic motivation can be identified in the case of PPPE students (Conscientiousness, Emotional stability, Openness).
2. Personality traits correlate with motivational factors in the case of Preschool and Primary School Teacher Training students.
3. Personality traits can explain the occurrence of motivation factors as well as the satisfaction with career choice.

3.6.2. Participants

259 respondents participated in the study, students at four different universities in the country. Personal data regarding age were completed by 251 respondents, see Table 56. The students' age range is between 18 and 52 years, the median age is 23.67 years ($SD=7.657$). The participants come from 12 counties: Arad (0.77%), Bacău (1.54%), Bihor (12.36%), Braşov (0.39%), Covasna (15.44%), Harghita (40.15%), Maramureş (1.16%), Mureş (1.16%), Satu Mare (17.76%), Sălaj (3.47%), Timiş (0.39%), as well as Pest in Hungary (0.77%). 12 participants did not provide data referring to the county of provenance (4.3%).

3.6.3. Research methodology and process

The data were collected in the academic year 2016/2017 through a paper-based survey. The BFQ questionnaire was handed out by teachers at the aforementioned universities at the end of classes - students were assisted by supervisors if clarification was necessary. Students were notified for consent and gave their agreement to use the data in research. Completing the questionnaire lasted around 20 minutes.

The data we obtained were processed through IBM SPSS Statistics 22, the tables and diagrams were created in Microsoft Excel and Word of Microsoft Office 16 package.

Descriptive statistics, the Pearson Correlation Coefficient were used to compare data. The statistical significance level is $p \leq 0.05$.

Tools

1. Big Five Questionnaire

The tool applied was the Big Five Questionnaire validated by Caprara et al. (Caprara, Barbaranelli, & Livi, 1994; Caprara, Barbaranelli, Borgogni, & Perugini, 1993), validated for Hungarian by Rózsa (2008), created to measure the five big factors of personality. This questionnaire contains 132 phrases, evenly distributed throughout the 10 dimensions, and the lie scale scored from 1 - I totally disagree, - to 5 - I totally agree.

The main dimensions and the sub-scales of the questionnaire are:

1. Energy/extraversion, composed of the following aspects: dynamism (it refers to expansiveness and enthusiasm), as well as dominance (it refers to assertiveness and trust);
2. Amiability, the factor used under the term agreeableness or amiability versus hostility, with the following aspects: cooperativeness/empathy (it refers to compassion for and sensitivity towards others and their needs), politeness (it refers to kindness, politeness, obedience, and trust).

3. Conscientiousness refers to controlling impulses, it has the following aspects: scrupulosity (it refers to reliability, order, precision), and perseverance (it refers to the ability to carry out tasks).

4. Emotional stability refers to emotional control (the ability to adequately handle anxiety and emotions), and impulse control (the ability to control irritability, discontent, and anger).

5. Openness referring to culture, intellectuality, and openness to experience; it has the following aspects: openness to culture (level of cultural interest), openness to experience (openness to novelty), tolerance of different values, interest in different people, habits and lifestyles.

6. Lie, to measure social desirability.

2. Factors Influencing Teaching Choice Scale

The scale of factors that influence teaching as a career choice (FIT-Choice Scale) (Richardson & Watt, 2006; Watt & Richardson, 2007) is an easy-to-use tool to evaluate the motivation to become teachers. The scale has been previously presented, for this research we use our adaptation to Hungarian.

3.6.4. Results

To check the reliability of the scale, the Cronbach alpha coefficient was calculated. The values vary between 0.716 and 0.846, which shows acceptable reliability (over 0.7) and from moderate to high one (over 0.8) (Neill, 2004). These results are in line with the results of research on Romanian sample by Pitariu, Vercellino and Iliescu (2008), and those of the research by Rózsa (2008) for the Hungarian sample in Hungary, as well as the results of the research samples from the USA (α between 0.74 and 0.85), from Spain (α between 0.73 and 0.87) and Germany (α between 0.65 and 0.85) (Rózsa, 2008). For the sub-scales, reliability is between 0.515 and 0.792, which shows in the case of “cooperativeness” reliability below the threshold of 0.6, while the values for the other sub-scales are over the acceptance threshold of 0.6.

The values presented by the three dimensions are very high (over 65 very high values, between 55 and 65 high values, between 45 and 55 medium values, between 35-45 low values, under 35 very low values) (Rózsa, 2008). Thus, if we create a prototype based on the average values of the respondents, it has the following characteristics: extraversion, altruistic and tolerant, diligent, accountable, balanced, creative. Since our sample consists of women, in order to compare data, we use data referring to women from the study by Rózsa (2008).

The mean values of the Hungarian sample are lower than those of the Romanian normative sample, respectively the mean values of women in the Hungarian normative sample are all lower than those of the Romanian normative sample. The mean values of our sample vary, no tendency can be generalized for all BFQ scales as compared to the other two samples.

If we compare the values of the dimensions of personality we measured by BFQ with the results of Ion, Vercellino and Iliescu (2010) through the t-test, we may conclude that the values t_R are significant in the following dimensions: Energy ($t=-8.22$ at $p\leq 0.001$), Conscientiousness ($t=2.41$ at $p\leq 0.05$), Openness ($t=-11.37$ at $p\leq 0.001$).

If we compare the values of the dimensions of personality we measured by BFQ with the results of the version validated by Rózsa (2008) for women in the Hungarian sample, through the t-test, we have the following results: the difference between our sample and the Hungarian sample in the dimension of Energy is not significant ($t=1.923$ at $p=0.056$), but all the others are significant; thus, the difference of Amiability ($t=4.873$, $p=0.000$),

Conscientiousness ($t=4.018$ at $p=0.000$), Emotional stability ($t=19.543$ at $p=0.000$) and Openness ($t=-8.079$ at $p=0.000$).

For the Lie scale, the value is significant ($t=-10.63$ at $p\leq 0.001$), which means that our sample differs from the Romanian sample due to lower mean values. If we compare these values with the t value of the Hungarian sample, our value is significantly higher than that of the Hungarian one. The values of the Lie scale have low values in our sample and that of the Romanian one (the means are between 35 and 45), which means that these are individuals who tend to engage in self-criticism or show antisocial behavior, while the value for the Hungarian sample is very low (below 35), many respondents have the tendency to reflect negative personality traits or a negative self-image, as well as increase the importance of their personal negative traits, or have antisocial behavior. (The mean values of this scale would be between 45 and 55 if there were no tendency to deliberately falsify the profile of the personality neither negatively nor positively (Rózsa, 2008). The Lie scale values would be high, between 55 and 65 points and very high above 65 points, which would mean that the individuals would want to showcase positive traits, and not accept their negative ones, or the mistakes they make, or they are very naive (Rózsa, 2008). In our case, we have low values, therefore, the possibility of the negative influence of the profile of personality may occur.)

The results show a weak positive correlation, significant on the threshold of significance $p\leq 0.01$ between the dimensions of Energy and Openness, Amiability and Openness, Conscientiousness and Openness, weak negative correlation between Emotional stability and Openness.

The correlations between the dimensions of the BFQ questionnaire and the factors of the FIT-Choice scale do not have high values at a significant threshold, the tendency is perceivable from the significant, low positive correlation (over 0.3 at $p\leq 0.01$) in the case of the dimension of Conscientiousness with the intrinsic value of career ($r=0.344$), as well as that between Conscientiousness and Satisfaction with the choice ($r=0.361$).

The correlations between of the BFQ sub-scales and the FIT-Choice factors do not have high values (over 0.5) having in mind the established significance threshold ($p=0.05$), but there is significant, low positive correlation between the factor Abilities and the dimensions of the BFQ scale: Dynamism ($r=0.327$), Dominance ($r=0.339$), Perseverance ($r=0.315$). The Intrinsic-value-of-the-career factor shows significant correlation with Scrupulosity ($r=0.337$), and the Satisfaction-with-choice factor with the Scrupulosity dimension ($r=0.330$) and Perseverance ($r=0.331$).

To see if the personality dimensions predict the occurrence of the motivational factors we did linear regression analysis. The five personality traits were the predictors, the dependent variables were the FIT-Choice motivational factors. The results show that in the case of Conscientiousness (Scrupulosity) for the factor Intrinsic value of career ($R^2=0.118$), the dimension Energy (Dynamism, Dominance, and the subdimension Perseverance) in the factor Abilities ($R^2=0.146$), respectively the dimension of Conscientiousness (Scrupulosity, Perseverance) for the factor Satisfaction with choice ($R^2=0.130$) the values are significant ($p\leq 0.001$), the values of the standardized coefficient being over 0.2. Thus, the relationship is weak but significant between the personality dimensions and the motivational factors - the Conscientiousness dimension being a predictor of the Intrinsic value of career factor, which explains 11.8% of the variant and can be generalized in the case of the Preschool and Primary School Teacher trainee population, and it explains 13% for the Satisfaction with choice factor and it can be generalized. A secondary result is identifying the Energy dimension as a predictor for the Ability factor, which explains 14.6% of the variation at a significance threshold.

3.6.5. Conclusions and discussion

This study aimed to analyze and identify the personality traits of Teacher-preparation program students and the analysis of the correlation between BFQ tools and the factors of the FIT-Choice scale to identify the possible relations.

The Cronbach alpha coefficient is between 0.71 and 0.84 for the five dimensions, which reflects acceptable reliability (over 0.7) and from moderate to high (over 0.8), the results being in line with the results of Rózsa (2008) for the Hungarian sample, as well as for the results from samples from the USA, Spain, and Germany, but are different from the Romanian sample.

We had three hypotheses; the first being: Personality traits connected to intrinsic motivation can be identified in the case of PPTT students (Conscientiousness, Emotional stability, Openness). This hypothesis has proved to be true in the case of all mentioned dimensions: Conscientiousness, Emotional Stability, and Openness to experience (for all their subscales). Even more, in the case of the Amiability dimension, there has also been a significant difference between PPTT students and the population.

The second hypothesis: Personality traits correlate with motivational factors in the case of PPTT students has proved wrong, despite there having been a tendency towards this. The statistical analyses did not provide high enough values, the correlation between personality traits and motivational factors being weak but significant: Conscientiousness (Scrupulosity) and the Intrinsic value of a teaching career, Energy (Dynamism, Dominance), (Perseverance) and Abilities, as well as personality traits and Satisfaction with choice, that is, between Conscientiousness (Scrupulosity, Perseverance) and Satisfaction with choice.

The third hypothesis: Personality traits can explain the occurrence of motivation factors as well as satisfaction with choice has proved to be true. Regression analysis shows that there is a weak, but significant relationship between certain personality dimensions and motivational factors; thus, the Conscientiousness dimension being a predictor of the Intrinsic career value factor, which explains 11.8% of the variation and can be generalized in case of the Preschool and Primary School Teacher trainee population, and it explains 13% for the Satisfaction with choice factor and it can be generalized. A secondary result is identifying the Energy dimension as a predictor for the Abilities factor, which explains 14.6% of the variation at a significance threshold.

If we create a prototype of the PPTT students' personality traits based on the mean values of the respondents, it has the following characteristics: extraversion, altruistic and tolerant, diligent, accountable, balanced, creative.

This profile is in line with the "Factor X+" of Romanians described by David et al. (2015).

3.6.6. The limitations of the research and research directions

A limitation of the research is the small number of samples; therefore, this sample of PPPE students could be compared with samples of other students, teachers, or other occupations, which could be the subject of further research.

3.7. Study 6. Resilience as a way of strengthening career motivation

In specialty literature resilience has several diverse definitions, but it is common in these definitions, that it refers to human strength, to a disturbance and development, to adaptation by coping, respectively positive results after exposure to adversity (Wald, Taylor, Asmundson, Jang, & Stapleton, 2006). Windle (2011) conceived the definition of resilience as a process of effective negotiation, adaptation, or management of sources of stress or trauma. Individual qualities and resources, environment and lifestyle facilitate the ability to adapt. This experience in resilience changes throughout our life.

Richardson et al. (Richardson, Neiger, Jensen, & Kumpfer, 1990; Richardson, 2002) describe the homeostatic balance affected by internal and external stress factors, and the ability to cope in these cases is influenced by adaptation to previous situations. They argue that these previous situations, in which stress factors appear, lead to disturbances of the homeostasis, in time reintegrating into the personality in four possible ways: a) the disturbance leads to the development and increase of resilience, thus homeostasis reaching a higher level; b) the person overcomes the disturbance, reaching back to the initial level of homeostasis; c) the person overcomes the disturbance, but with losses on the level of homeostasis; d) as a result of the disturbance the person develops erroneous adaptive strategies in the fight against stress. Therefore resilience can be seen as a measurement of the ability to cope successfully with stress.

Wald et al. (2006) underline that resilience has multidimensional characteristics that change depending on context, age, sex (gender), time, cultural differences and differences in individual life. Resilience can be seen as an ability to cope with stress and is influenced by a person's health conditions.

Fletcher and Sarkar (2013) summarize the definitions, concepts and theories related to psychological resilience. Psychological resilience refers to the way in which people resist daily pressures. From the published studies they emphasize the qualities and character traits that help face these pressures: light temperament, good self-esteem, planning skills and supportive environment in the family and outside it. They found many definitions in which resilience was defined as a trait, process, or outcome. They concluded that in most cases resilience is considered an adversity, the consequence of which is a positive adaptation to a specific situation. Most theories present resilience as a dynamic process that changes over time and most authors argue that resilience is determined by a number of factors, which vary in different theories. Fletcher and Sarkar (2013) suggest that psychologists develop resilience programs by developing protective and promotional factors, based on evaluation strategies and meta-reflective strategies; these techniques would be: minimizing catastrophic thinking, confronting counterproductive beliefs, energy management, problem solving, practicing gratitude, and strengthening relationships.

Martin (2002) points out that although motivation is of great importance in academic success, students may lose the academic benefits gained if they do not have adequate resilience to failure (eg poor performance, negative feedback from teachers), pressure on studies and stress in the academic environment. Academic resilience (Martin, 2002) is defined as the student's ability to effectively manage academic failure, stress, and studies related pressure. Based on motivational theories, the expert, highlights the components of resilience in helpful, supportive environments: self-confidence, focus on study, the value of education, persistence, planning and monitoring, study management; and useless, inhibitory components such as: anxiety, low level of control, failure and self-sabotage. Thus, in order to increase the students' resilience, he proposes to focus of the approach of the homework, beliefs about himself, attitudes related to study, achievements and school, learning skills and learning goals.

As the studies of Anasuri and Anthony (2018) show, resilience is influenced by protective factors and risk factors. Protective factors are defined as biological, psychological, family or community characteristics that reduce the likelihood of problems. Risk factors affect the individual's level of functioning and are often factors that the person cannot control (eg. low self-esteem, anxiety, lack of parents, poverty and poor attachment abilities).

From the different definitions of resilience mentioned we consider that resilience is the way to persist, to adapt by coping, to manage the sources of stress or trauma, the return to well-being. The individual qualities and resources, the social environment and the lifestyle facilitate adaptability, which is also influenced by the way of adaptation to previous situations.

3.7.1. Resilience program for education

Broadbent and Boyle (2014) describe an educational project to promote positive education, resilience, and student well-being through the education of values. Thus the project follows the national perspective, implemented by the Australian government and being developed based on the education of the nine usual values established by the Department of Science Education and Training since 2003: care and compassion, achieving performance (doing your best), fairness, freedom, honesty and trust, integrity, respect, responsibility and understanding, tolerance and inclusion.

Torsney and Symonds (2019) developed a professional student program related to professional resilience (PROSPER) to increase students' ability to stay engaged in classroom work, thus promoting educational resilience. Their program was based on the theory of change in intervention, consisting of: the change in how to remain involved in connection to the class, the subsequent change in the commitment to work with the class and the subsequent long-term change in the willingness for involvement. The qualitative results of the program demonstrated the facilitation of students' knowledge, momentary commitment and teacher involvement with students. The PROSPER program ran through 30 different 40-minute lessons over a 6-week period, focusing on specific targets for current classroom engagement. The program followed the construction of personal and social resources for the current commitment and its application, these being: student identity, learning attitudes, perceived level of student competence, educational goals, relationships between students and teachers as social resources and the level of perceived competence of students in staying focused even in cases when distracting factors appear. During the evaluation of the program, the facilitating parts and its limits were identified, but positive qualitative changes were also found in the students' knowledge and in the current attachment in relation to the intervention, especially regarding the taught concepts and the momentary physical actions in the standardized tasks. Students with weaker abilities were able to take advantage of the better abilities of other students by changing their beliefs about certain psychological processes, having a positive impact on competences and resources for engagement. At the same time, no notable changes were found in the commitment provisions during the studies.

Lang et al. (2020) created an online course to support kindergarten teachers to facilitate stress management and resilience practices. A pre- and post-test was applied in the program to check what teachers understand by resilience, stress reduction techniques, coping skills, receptivity to children's negative emotions, feedback related to the intervention material and demographic information. Between pre- and post-test, the participants completed the two weeks intervention course entitled "Social Emotional Learning for Teachers (SELF-T)" online. The actual course lasted about three hours online, consisting of five lessons to help students learn how stress works in the human body, how students' bodies react to stress and have acquired new strategies to reduce stress (beliefs, discussion of beliefs, emotional reassessment, controlled breathing, visualization). The training included 63 teachers from preschool

education and showed that they gained more knowledge about stress, stress reduction, the use of preventive strategies and better managed the re-evaluation of emotion regulation, with positive consequences for their work with and receptivity to children.

3.7.2. Timeliness of the resilience program

Arnout (2021) defines psychological resilience during the COVID-19 pandemic as an ability to change attitudes and behaviors when new or unexpected events occur. Based on the literature, it separates the following resilience trainings applied during the COVID-19 pandemic: psychological resilience training, mindfulness training, mediation training, spiritual training, gratitude training, acceptance and commitment therapy and virtual reality therapy.

In order to favor the increase of students' resilience, we developed a resilience training (program), because between April and June 2020 we noticed in the university students a sudden decrease of social relations, self-esteem, motivations towards a goal, even neglect of studies and college-related tasks, students showing signs of anxiety, depression, and so on.

3.7.3. Measuring resilience

Connor and Davidson (2003) developed the Connor - Davidson Resilience Scale (CD-RISC) for measuring resilience in the treatment of anxiety, depression and stress reactions. The scale is based on the results of several researchers (eg Kobasa, 1979; Rutter, 1985; Lyons, 1991) with items that reflect the strength construct; control, commitment and change seen as a challenge; strategy for developing a goal or target, orientation towards action, high self-esteem, adaptability to change, skills in solving social problems, humor in stressful situations, power and responsibility in dealing with stress, stable emotional bonds and previous experiences of success and achievement; patience and the ability to endure stress or pain. Based on these considerations, the scale was built for helping valid and accurate quantification of resilience in order to establish resilience guidelines both for population and for clinical cases and to measure the modifiability degree of resilience in pharmacological treatment in clinical cases. Helmreich et al. (2017) in the meta-analysis related to the resilience measurement scales showed that the Connor - Davidson (2003) resilience scale presents a quality psychometric instrument with internal consistency (Cronbach α) >0.70 , and the validity shows available correlations or criteria $>50\%$ of correlations with ≥ 0.5 . Thus, we consider that this scale is suitable for measuring resilience in our study. Windle et al. (2011) performs a methodological review of resilience scales for general and medical use, finding a total of 15 scales of this type. They conclude that the scales developed for adults have the best psychometric properties, namely: CD-RISC, Resilience Scale for Adults and Brief Resilience Scale.

3.7.4. Objectives and hypotheses

Theoretical objectives

The study aims to increase student resilience during the Covid-19 pandemic. For this we have developed an 8-session resilience training, which is meant to stimulate students in their commitment to academic tasks, relationships with colleagues, problem solving, working with children, effective treatment of failures, stress, difficult situations a.s.o.

Practical objectives

As a practical objective, we set out to explore the effectiveness of the resilience program we have developed for students, so that it can be used in the future in interventions to increase resilience in academic context.

Methodological objectives

We follow as methodological objectives the obtaining of some information on the resilience program, regarding especially the structure of the program, the necessity and the structure of the tasks and exercises, respectively of the theoretical presentations.

General hypothesis

The resilience program is effective in increasing student resilience.

Specific hypotheses

1. The level of resilience of students from different university centers in Romania is similar.
2. The value of resilience increases significantly in students participating in the program.
3. Intrinsic academic motivation and introjected regulation of extrinsic motivation are predictors of students' level of resilience.

3.7.5. Method and procedure

Participants

129 students took part voluntarily in this resilience program from two universities in the country in three university centers, all of them being in teacher training programs for primary and preschool education (Pedagogy of Preschool and Primary School Education profile, PPPE). One student was excluded from the statistical processing, the data connected to him being invalid.

In order to verify the efficiency of the program at the beginning of the study, the participants were divided into two groups according to the institute where they followed their courses: one group involved in the resilience program (intervention group) (N = 61) and a passive group (control group) (N = 67). The group involved in the resilience program participated in the activities of the project, while the members of the passive group completed the scales used in the pre-test and post-test and received some information about resilience.

The average age of the participants was 22.03 years, with no significant differences between the two groups. The participants in the group involved in the program were women, except for one male person, and in the passive group except for two men, all were women, so it was not possible to analyze the difference between the groups based on gender.

Instruments

Two pre-test and post-test scales were used: the Connor-Davidson Resilience Scale (CD-RISC) for measuring resilience (Connor et al., 2003) and the Academic Motivation Scale for Higher Education Students (AMS) for measuring motivation (Vallerand et al., 1992).

1. Connor-Davidson Resilience Scale (CD-RISC)

I chose the Connor-Davidson Resilience Scale (CD-RISC) (Connor et al., 2003) for easy usability in measuring resilience, being a relatively short self-assessment test, demonstrating good psychometric properties, high internal consistency and reliability in the test-retest phase. The authors of the scale recommend the application in resilience interventions by identifying these characteristics, and their strengthening, respectively for measuring the responses in interventions. The scale can be used to investigate coping strategies with stress, revealing adaptive or maladaptive behaviors for different activities or professions.

The CD-RISC contains 25 items, which aim at finding out how the person felt in the last month. Items are scored on a 5-point scale (from 0 - not at all true, 1 - rarely true, 2 - sometimes true, 3 - often true, to 4 - true almost all the time) the total score can be between 0-100, the higher score showing higher resilience level. We used the Hungarian version adapted by Kiss et al. (2015). The time to complete the scale was approx. 5 minutes.

The authors identified five factors of the scale: F1 - personal competence, high standards, tenacity; F2 - confidence in instincts, tolerance of negative ailments, effects that strengthen in stressful situations; F3 - positive acceptance of change and secure relationships; F4 - control; F5 - spiritual influence.

2. Academic Motivation Scale for Higher Education Students (AMS)

The Academic Motivation Scale for Students (AMS) was developed in French, called Echelle de Motivation en Education, translated and validated into English in 1992 by Vallerand et al., its validity and reliability making it possible to use it in educational motivational research (Vallerand et. al., 1992). The developers of the scale based their theory on the motivational perspective of Deci and Ryan (1985a) and Deci, Vallerand, Pelletier and Ryan (1991) who emphasize that behavior can be intrinsically or extrinsically motivated, or even non-motivated, and these types of motivations are measured by seven dimensions of different scales, thus: for the intrinsic motivation knowing, realizing and experiencing the stimulation, for extrinsic motivations of external regulation, introjection and identification, respectively for non-motivation (Vallerand, et al., 1992).

Thus, the AMS scale consists of 28 items, organized in seven subscales, measuring: intrinsic motivation for knowledge (IMTK), intrinsic motivation for achieving things (IMTA), intrinsic motivation for experiencing stimuli (IMES), extrinsic motivation for regulatory identification (EMID), extrinsic motivation for introjected regulation (EMIJ), extrinsic motivation for external regulation (EMER), and non-motivation (AM). For our study we used the Academic Motivation Scale Hungarian version (AMS-HUN) for Higher Education Students (Tóth-Király et al., 2017), in which these motivations are scored on a scale of 7 points (from 1 – Does not apply, 2, 3 - Apply a little, 4 – Applies moderately, 5, 6 – Applies a lot, at 7 – Applies perfectly). The time to complete the scale was approx. 6 minutes.

3. The resilience program

The resilience program consists of eight 60-minute sessions, aimed at developing students' resilience in stressful daily situations, situations related to academic life. The program consists of elements of self-knowledge, information related to resilience, developing the ability to perceive individual skills, problem solving, developing communication skills, feedback, identifying personal motivation and recognizing the motivations of others, methods of recognizing one's own values, which influences behavior, recognition of colleagues' values, methods of changing one's motivations, emotional regulation, etc.

Procedure

Data collection and intervention was performed during the program sessions. After introductory discussions and informing participants about the purpose of the program, at the beginning of the first session they completed the Connor-Davidson Resilience Scale (CD-RISC) and Academic Motivation Scale for Higher Education Students (AMS), receiving the necessary instructions for completion.

The participants were informed that the data of the resilience program will be published, being also ensured by the confidentiality regarding the processing of personal data.

The intervention session consisted of eight pre-established stages, of approx. 60 minutes a week, made online.

In the first two sessions of the resilience program were presented aspects of self-knowledge, self-knowledge exercises, exercises related to life goals, self-confidence. These sessions were followed by a session on the values of life and attitudes we have based on these values. Then a session related to contacts and social support and social networks followed, having a part related to the students of the year of study of which they are part. The fifth session consisted of exercises related to motivation types and coping strategies. At the next session, communication strategies and exercises related to this topic were presented, both in an

unknown entourage and in an academic context, respectively of kinship. The seventh session was based on problem-solving methods. The eighth session consisted of positive thinking and flexibility exercises.

At the last session, participants completed the Connor-Davidson Resilience Scale (CD-RISC) and Academic Motivation Scale for Higher Education Students (AMS) for the post-test, respectively, and were interviewed about the training results.

The processing of statistical data was performed using IBM SPSS 22, the tables being built in Microsoft Excel 2016.

3.7.6. Results

Prior to data analysis, each variable was examined using frequency distribution in order to identify possible coding errors or missing data.

The CD-RISC average ($M = 68.68$, $SD = 12.46$) is well below the resilience level measured by Connor & Davidson (2003) for the normal population $M = 80.4$ ($SD = 12.8$), but close to the population from Hungary ($M = 69.03$, $SD = 11.46$) (Kiss, et al., 2015).

We examined the internal consistency and fidelity of the tests. For CD-RISC the value of the Cronbach alpha index for pre-test is $\alpha = 0.894$, and post-test Cronbach $\alpha = 0.915$. These values show a moderate to high degree (above the threshold of 0.80), respectively a high degree of reliability (above the threshold of 0.90). In the case of AMS these values are: pre-test AMS Cronbach $\alpha = 0.746$, post-test AMS Cronbach $\alpha = 0.756$. These values show a low degree of reliability (between 0.7-0.8).

The factorial analysis identified 6 factors of the CD-RISC scale in the pre-test, covering 59.924% of the items with Eigenvalues kept above 1. The KMO and Bartlett test shows a value of 0.810 for $p = 0.000$. This is above 0.6, so it is a significant value for $p < 0.001$. In the post-test, six factors were also identified for the CD-RISC scale, covering 52.265% of the items with Eigenvalues kept above 1. The KMO and Bartlett test shows a value of 0.869 for $p = 0.000$. This is above 0.6, so it is a significant value for $p < 0.001$. The identified factors are consistent with those found by Kiss et al (2015), according to the adaptation of the scale to the Hungarian language.

For the AMS scale by factor analysis we identified 6 factors in the pre-test, which covers 66.332% of the items with Eigenvalues kept above 1. The KMO and Bartlett test shows a value of 0.837 for $p = 0.000$. This is above 0.6, so it is a significant value for $p < 0.001$. In the post-test we found five factors for AMS, covering 67.172% of items with Eigenvalues kept above 1. The KMO and Bartlett test shows a value of 0.838 for $p = 0.000$, so the value is significant for $p < 0.001$.

To test the equivalence of the groups in the pre-test, we performed the Levene test to test the assumption of homogeneity. In the case of tests IMTK ($p = 0.89$), IMTA ($p = 0.71$), IMES ($p = 0.64$), EMIJ ($p = 0.07$), EMER ($p = 0.41$), AM ($p = 0.69$), CD-RISC ($p = 0.88$) Levene test values are insignificant, so homogeneity can be assumed. In the case of the EMID test the value of the Levene test is significant ($p = 0.02$), which means that the homogeneity of the variations cannot be assumed. In this case, since it violates Anova's assumption of homogeneity variance we will examine the Welch values to test our hypothesis.

We tested the analysis of unidimensional variants (One-Way Anova) was in order to compare the two groups based on pre-test evaluation. The results show that there are no significant differences within the pre-test group at the following scales: IMTK, $F(1.115) = 0.03$, $p = 0.84$, IMTA, $F(1.115) = 0.38$, $p = 0.53$, IMES, $F(1.115) = 0.44$, $p = 0.50$, EMIJ, $F(1.115) = 0.19$, $p = 0.65$, AM, $F(1.115) = 0$, $p = 0.97$, CD-RISC, $F(1.115) = 0.01$, $p = 0.89$.

In the case of the EMID test, because homogeneity cannot be assumed, we examined the value of the Welch test. We can say that there are no significant differences between groups neither in the EMID test, nor in the WELCH (1.110) = 0.199, $p = 0.65$.

Based on the ANOVA and Welch test, we can see that there are no significant differences between the groups at the time of the pre-test.

According to the logic of testing efficiency, it should be tested whether the scores change in the expected direction from pre-test to post-test. To test them we used the t test. The results show that the scores do not change significantly from pre-test to post-test in the control group for any of the tests used.

Regarding the intervention group, two subscales of the tests used show a significant difference at the IMTA subscale ($M = -0.32$, $t(56) = -2.23$, $p < 0.05$) and the CD-RISC scale ($M = -2.71$, $t(56) = 2.18$, $p < 0.05$). In both cases the scores change in the expected direction, which means in our case the increase of the scores from pre- to post-test.

To further test the effectiveness of the intervention, we need to make sure that the intervention group has significantly better post-test scores than the passive group. Following the logic of efficiency, we analyzed the one-dimensional variants with One-Way Anova, only for the IMTA and CD-RISC scales. For both tests the homogeneity can be assumed, the value of the Levene test being insignificant at the IMTA scale ($p = 0.851$) and at the CD-RISC scale ($p = 0.596$).

According to the results, even if the scores change from pre-test to post-test, these changes are not significant compared to the passive group.

3.7.7. Conclusions and discussion

The study aimed to increase student resilience during the COVID-19 pandemic. For this we have developed an 8-session resilience training, which is meant to stimulate students in commitment to academic tasks, relationships with colleagues, problem solving, working with children, effective treatment of failures, stress, difficult situations a.s.o.

The scales used in the pre-test and post-test were analyzed. The results of the factor analysis at the CD-RISC scale differ from the initial results of the scale developers, because we identified six factors, corresponding to the version adapted by Kiss et al. (2015).

For the AMS scale, the factorial analysis showed six and five factors, respectively, which is consistent with the specialty literature (Tóth-Király, et al., 2017).

As a practical objective, we set out to explore the effectiveness of the resilience program we have developed for students, so that it can be used in the future in interventions to increase resilience in academic field. Following the logic of efficiency in an intervention, we can say that: the groups were equivalent at the time of the pre-test, so the first hypothesis: The level of resilience of students from different university centers in Romania is proved right.

The scores in the intervention group increased after the implementation of the intervention method, but only in the IMTA and CD-RISC tests are there significant changes. However, we cannot confirm the second hypothesis, according to which: The value of resilience increases significantly in students participating in the program, because the modified scores on the post-test are not significant compared to the passive group. These results can be explained by the results of researchers Zimmer-Gembeck and Skinner (2016). They argue that psychological dispositions such as self-perception and the tendency to emotional regulation are gradually developed over a longer period of time.

Intrinsic academic motivation and introjected regulation of extrinsic motivation are predictors of students' level of resilience.

We followed as methodological objectives the obtaining of some information on the resilience program, regarding especially the structure of the program, the necessity and the

structure of the tasks and exercises, respectively of the theoretical presentations. We asked for students' feedback on the program, which highlighted not only the need for such resilience programs for students, but also the strengths of the training: exercises related to self-knowledge, setting individual goals related to life, respectively academic life, exercises related to self-confidence, perception of individual competencies, problem solving, development of communication skills, feedback, identification of one's own motivations and recognition of other people's motivations, methods of recognizing one's own values and the values of colleagues, methods of change in one's own motivations, of emotional regulation. We received positive feedback about the atmosphere of the program, the participants said it was interesting and very dicers. Many participants requested the continuation of the program in the next academic year.

We consider that the resilience program was useful for the participating students, although statistically the effectiveness could not be demonstrated, because no significant difference was seen between the post-test of the intervention group and the passive group.

3.7.8. Limits and perspectives of research

One limitation of the research is the difficulty in obtaining the data of the passive group in the post-test. In the pre-test, the students completed the scales, because the completion date was after entering online education and their teachers could have an influence on them more easily. After two months they reacted poorly, so the passive group was reduced in number, according to the data received.

The time division of the program should be modified, not in terms of length, because two months are enough, but more activities would be needed during this period, integrating more exercises for practice and deepening, since in student feedback some topics were mentioned that they would have liked to deal with for a longer time.

The resilience program could be applied to several groups of students to see if resilience growth trends can be really useful later on.

CHAPTER IV. CONCLUSIONS AND GENERAL DISCUSSIONS

The main purpose of the doctoral thesis entitled “The Role of Intrinsic Motivation in Choosing the Teaching Career in Preschool and Primary Education” was to find motivation of teaching as a career choice firstly from a theoretical standpoint, analysing literature, secondly through research with empiric results which are meant to prove or dismiss working assumptions.

The first chapter “Relevance and Objectives of the Research” presents the topicality of the chosen subject, the importance of the research and the motivation of choice. The objectives and the issue of the study have been discussed in the Introduction.

The theoretical objective of the present thesis was to identify and familiarize with the theoretical and empirical results of the research conducted about the motivation of the students from PIPP to choose teaching as a career. This objective was achieved in the second chapter, “Theoretical Foundation of Teaching in Preschool and Primary-School as a Career Choice” where we follow the literature and in Study 1. of Chapter II.: “Meta-analysis: the association between the intrinsic career value and the factors related to the career choice for students bound to become teachers” which presents the research in the domain and the determination of the instruments used to measure student motivation from PIPP. The identified instrument was the Factors Influencing Teaching Choice Scale, devised by Watt and Richardson (2004).

The methodological aims dealt with information gathering concerning the reliability of the scales used to measure student motivation of those determined to choose teaching as a career. In this respect it was important to adjust the questionnaire Factors Influencing Teaching Choice Scale (in Study 2) and Aspirations (in Study 3) to the Hungarian language to explore the motivation of teaching as a career choice. The adjustment of the questionnaires was necessary as accessible measuring tools were unavailable in Hungarian. Using the FIT-Choice we tried to identify the change of motivation for career choice within three years.

The practical aim of the study was to exploit the data about motivation and personality traits of the students bound to become teachers, analyzing on one hand the extrinsic and intrinsic motivation and on the other hand through the BFQ questionnaire. This objective has been achieved both by evaluating the AI and FIT-Choice Scales and by analyzing the contents of Study 4. Furthermore, the exploitation of the motivation in teaching as a career choice, Study 5, the traits of character of the students bound to become teachers added to it.

A program aiming to improve reliability of the students has been put into practice. This is meant to help students face the demands of university studies to become teachers, and later to face the challenges of the labor plan described in Study 6. Reliability as a means can be used to foster motivation in the career especially if it is appreciated by the students on the long run, but it cannot bring about important statistic results.

Concerning the validation of the scales we can summarize that:

The objective of Study 2a was the validation of the FIT-Choice Scale and its adjustment to Hungarian. The analysis of validity was done by calculating the internal validity Cronbach alpha and realizing a factorial analysis which permitted the identification of the main constructs. The results show that the translated instrument has good psychometric properties, so it can be used in further studies. The Cronbach alpha values range between 0,745 - 0,936, for 4 subscales between 0,625 – 0,697 (Make social contribution, transferability of work, social dissuasion and job experts), the lowest value being for the backup subscale (0,516) and high demand (0,485). We consider that the low α value for these subscales can be explained with the cultural differences in understanding the items in these scales.

The results of the scales about the perceptions of the job and personal decision are aligned with the results of Richardson and Watt (2006). Consequently, students consider that teaching is perceived as an expert career with low benefit. Our result is interesting, as income

should be connected to social status: if the perception of remuneration is low, this should lead to the perception of social status as being less influential. Unlike the data of the previously mentioned studies, our respondents appreciate a high social status of the profession, even though the remuneration is perceived as low.

In the longitudinal Study 2b I focused on checking the keeping the scores of the FIT-Choice after two and a half years – three from the first administration, assuming that the scale maintains its favorable characteristics of long-term applicability as well. The Cronbach alpha values do not present big differences between the two measurements: the subscales with low reliability in the first administration kept their low reliability during the second measurement, even though the items which did not correlate with the subscales they were contained in were reformulated. We explain these low values with the connotations of the terms used in those items, along with the socio-cultural features. As the authors suggest, these items can be ignored, but we consider that they have statistic value. On a longitudinal plane important differences can be seen between the two measurements: these differences refer to the perceived abilities, the intrinsic value of the career, the backup career, choosing the easier way, raising social appreciation, job experts, high demand, teacher morale, and at the higher-level factor the task request. These differences can come from the different perception of the factors on the job market. Meeting others, they start to appreciate themselves less and consequently the perceived abilities have a lower value than during the first measurement. Similarly, social equity can be affected so drastically that it can lower motivation and finally lead to abandoning the system of education altogether. On the other hand, the significance of the backup career improved and also the choice of the easier way through this career. The perception of the career as being an expert and demanding one and the higher task demand show that participants consider that they invest more in this career than they benefit from it. It is surprising that in the first two years of work these changes can be noticed in the motivation of individuals.

The main aim of Study 3 was the adjustment of Aspirations to Hungarian, at the same time analyzing the aspirations of the students bound to become teachers in comparison with other categories of people. The validity of aspect, content and construct of the index was checked: the reliability of the scale was 0,964, and for the subscales of aspirations it had values ranging from moderate to high (between 0,769 – 0,906). The factorial conforming analysis separated the 7 factors of the index which describe very precisely the aspirations of the scales. The image is divided into more factors.

Concerning the associations among the aspirations we assume that we obtained strong positive correlations between the subscales called Wealth and Image (above 0.6), which means that for those who aspire towards financial success image are more important, and the aspiration towards financial success leads to the observation of the appearances. The strong positive correlation between Personal growth and Health show that those who aspire for the health of the body can evaluate themselves easier and tend to mental health. The strong positive correlation (above 0.5) between the subscales called Wealth and Fame show the importance of the relationship between material and social welfare, just like the correlation between Fame and Image. The strong correlation between Personal growth and affiliation, and Personal growth and Community draws attention to the importance of interpersonal relationships.

We could not prove that the aspirations connected with teachers' intrinsic motivation is higher than that of people working in other fields. A significant difference can be noticed between teachers and students, though, unlike between teachers and other jobs.

Reflecting on the studies on the exploitation of intrinsic motivation of the students bound to become teachers we considered Study 2a, Study 3 and Study 4, concluding that the most important factors in choosing teaching as a career are linked to intrinsic motivation.

The intrinsic value of the teaching career is significantly strongly associated with the perceived abilities. Thus, the recognition and acknowledgement of one's abilities and the

identification of the abilities necessary for the teaching career are of utmost importance in career choice. The acknowledgement and improvement of personal abilities of the students concerning this profession is necessary throughout their student life, to obtain satisfying results in applying the learnt methods and teaching procedures in their pedagogical practice. The exploitation of these abilities will ensure later the necessary performance in the teaching career. Associating the Intrinsic career value with the work with children/adolescents shows a strong association with the students bound to become teachers. We consider that this association is very important, as it has a high influence on career choice. A teacher is aware of the age particularities of their students, knows what the tasks that the students can perform are and knows how to keep them active to foster their development. Associating the Intrinsic career value with shaping the future of children/adolescents presents a strong association, because those who choose to become teachers want to shape the future of their students, foster their development, help them fulfill their preferences and desires. Associating the Intrinsic career value with the satisfaction linked to career choice is strong. This means that the students bound to become teachers realize from adolescence or as young adults the importance of suitable career choice, are attentive to the intrinsic motivation in their own choice and guide themselves towards fields that satisfy them and their main motivations.

The aim of Study 4 was the investigation of the reasons of the students bound to become teachers that led to their career choice. The factorial analysis identified 14 factors from all the answers, factors that we categorize as: 1. childhood dream/wish, 2. personal and social utility, 3. emotional recharge, 4. transfer of knowledge and teaching of children, 5. choosing the easier way (holidays, do not want to become teachers), 6. influencing the new generation through teaching, 7. focus on children (love, care, development of children), 8. the possibility of a career (with the subfactor "I can not imagine myself with another career"), 9. vocation/calling, 10. taking advantage of the time spent with children (being loved and nurturing a good relationship with children), 11. supporting the children, 12. experience and abilities, 13. the beauty of the job and previous examples, 14. support from others.

The typical motivation in choosing teaching as a career is the love for children and the chance to spend time with them, as most of the students' answers mentions it, while the second most common one is the care for children. The students bound to become teachers present a significantly higher intrinsic rather than extrinsic motivation in their career choice, the results being in correlation with the previous studies of Brookhart and Freeman (1992), Bastick (2000a), Jansen and Bruinsma (2007), the TALIS report from 2008, Struyven et al. (2012), Menzies et al. (2015), Yoshida (2016), Spear et al. (2000), and the summary made by Heinz (2015). This means that the results for the Hungarian minority in Romania join those from Australia, Canada, USA, the Caribians, Hong Kong, Japan, Ireland, the UK, Norway, Belgium, Slovenia. The results obtained are contradictory to those of Bastick (1999), Weiss and Kiel (2013), Yüce et al. (2013), Fokkens-Bruinsma and Canrinus (2014), Heinz (2015), for Brunei, Jamaica, Malawi, Zimbabwe, Holland, Germany and Turkey, where the extrinsic motivation, especially linked to income and social status are the primary reasons for choosing teaching as a career.

The aims of Study 5 were analyzing and identifying the traits of personality of the students bound to become teachers and the analysis of the correlation between the BFQ instruments and the factors of FIT-Choice Scales for identification of the possible relationships. The conclusions are that certain traits of personality can be identified linked to intrinsic motivation (Conscientiousness, Emotional stability, Openness) of the students bound to become teachers: Conscientiousness, Emotional stability, Openness to new experiences (for all their subscales). More than that, for the Friendliness dimension there was a big difference between the students bound to become teachers and the population. We found a tendency of foretelling certain traits of personality of the students bound to become teachers:

Conscientiousness (Scruples) is somehow linked to the Intrinsic value of the career, Energy (Dynamics, Dominance), Perseverance in perceived abilities, Conscientiousness (Scruples, Perseverance) of Satisfaction with choice.

In Study 6. We researched the efficiency of the resilience program for the students meant for the COVID-19 pandemic period. The resilience program is divided into 8 sessions meant to stimulate students in their commitment towards the academic tasks, relationship with colleagues, solving of tasks, work with the children, efficient treatment of the failures, of stress, of difficult situations, etc. I came to the conclusion that, the level of resilience of the students from different university centers in Romania was similar in the pretests. The scores of the intervention group raised after the implementation of the intervention. Major changes were observed in the IMTA and CD-RISC tests. As a result, we cannot conclude that the resilience program brings important changes in the resilience of the students. The students' feedback towards the program of resilience shows that such programs are welcome, and its strengths were: exercises of self-knowledge, establishment of the individual aims in life and academic life, exercises of self-confidence, the perception of individual competences, of problem solving, development of communication abilities, feedback, identification of one's motivations and those of others, methods of recognizing personal values and those of the colleagues, methods of changing personal motivation, of emotional regulation. We consider that the resilience program was useful for the participating students even though its efficiency cannot be proven with statistics.

We consider that this doctoral dissertation has achieved its objectives. Being aware of the motivation that leads the student bound to become a teacher, we can search for methods to motivate career choice not only until the finalization of their studies, but also through their career, helping retention in this profession.

The study of motivation with the FIT-Choice Scales permits the implication in international research on motivation for choosing teaching as a career, making use of empirical data on the Romanian population. Consequently, a comparison of the motivation of different socio-cultural contexts of the participating countries becomes possible.

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KEYWORDS

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