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FOREWORD

Dear Readers, Pedagogues, Psychologists, Researchers and Doctoral Students!

In your hands, you are holding the second issue of our scientific journal Acta Educationis Generalis in year 2020. This issue is polythematic and contains seven scientific studies and three scholarly articles. Their authors focus on several subjects - pre-school children, primary school pupils, university students, youth as such and their opinions on social and public issues, teachers and their opinions in a range of educational contexts, and the specifics of educating healthcare workers for working with the disabled.

Who are our authors and what is in the focus of their attention?

The first scientific study was written by Mediha Sari and Ece Yolcu and is entitled "Students' Resistance Behaviours: What Do Turkish Primary Teachers Face?" They claim that students can react to learning activities, teachers, or administrators knowingly and wilfully, many times intentionally by resisting in various ways. Unlike naughty behaviours, resistance behaviours do not develop suddenly, they are often planned beforehand by the student, and they contain some messages to the person or institution they are directed at. The authors point out that such behaviours can have a negative impact not only on students' academic, social, and psychological development, but also on teachers' professional satisfaction. Therefore, these neglected issues should be elaborated carefully. With reference to this need, the study aims to identify primary school teachers' perceptions of students' resistance behaviours.

Marianna Fekete - the author of the study "Global Competences of Hungarian Young People in the Light of New Nationalism" - deals with the issues of the development of the global competences of Hungarian youngsters aged 15-29 in the context of national and global events of the last few years, such as the wave of refugees in 2015, terrorist attacks, climate change, strengthening of far-right and radical parties, fake news and manipulation, etc., which have had an impact on their ability of making an independent opinion, making resolutions based on facts and knowledge, being able to see through the flooding information dumping, and creating the routine of selection. How do young people think about themselves and others, about the "Other" and the "Stranger"? How do young people think about these social and public issues, how do they see themselves, the country and the world where they live, the present and the future that they will be shaping? These are the questions the author finds important.

Volkan Duran and Hüseyin Mertol - two authors from the Turkish university environment - in their study "Investigation of the Core Beliefs of the Teacher Candidates through Artificial Neural Networks" investigate the relationship between pedagogical beliefs, epistemological beliefs of teacher candidates as

well as their beliefs toward learning. It is a quantitative study based on a correlational survey model. Analysis of the data was done through artificial neural networks. The sample consists of fourth-grade students (teacher candidates) in social studies education in Süleyman Demirel University in Turkey. In this study, it is found that that beliefs toward learning are more fundamental than the epistemological and pedagogical beliefs and so, the beliefs toward learning should be remedied to educate more qualified teachers.

In the study "Teachers' Views about the Characteristics of Pedagogical Talents", Judit Orgoványi-Gajdos and Edina Kovács present the results of a survey on excellent teachers conducted in Hungary in 2018. The main question of the study was how pedagogical talents can be characterised by competences and personality traits according to effective teachers and their colleagues. Also what effective teachers think about their own competences and characteristics, as well as how that is related to their beliefs of pedagogical talents was tested.

Miron Zelina - an author from DTI University in Slovakia - deals with the topical issues of inclusive education and in his study "Interviews with Teachers about Inclusive Education" presents the key findings of the national project "School Open for Everyone." The research focused on the conditions and preparedness of schools for inclusive education. As a part of the project, an investigation into first-grade teachers' attitudes towards and opinions on the education of pupils with special educational needs in primary schools was carried out. The main findings show that the teachers' opinions and attitudes towards inclusive education are positive and they appreciate their cooperation with specialists in schools. The research revealed some barriers to the realization of inclusive education - e.g. the disadvantaged children's poor school attendance, their general unpreparedness for school and a number of emerging problems that need to be dealt with immediately.

Emel Dikbaş Torun - in the study "Educational Use of Social Media in Higher Education: Gender and Social Networking Sites as the Predictors of Consuming, Creating, and Sharing Content" - investigates the influence of gender and social networking sites (SNSs) such as Instagram, YouTube, WhatsApp, Facebook, and Twitter on consuming, creating, and sharing content within the educational social media usage behaviours of higher education students. The author points out that in order to ensure a more effective use of social media in education, it is important to understand how university students vary in using of media for educational purposes. The aim of the research was to determine the correlations, if any, between gender, preferred SNS type, and educational social media in regard to consuming, creating and sharing content.

In her scientific study entitled "Developing Undergraduate Students' Teaching Competences", Emese K. Nagy focuses on the university environment. Her aim was to show how undergraduate students are able to differentiate among learning-centred, learner-centred, feedback-centred, and community-centred knowledge acquisitions. The author and her colleagues wanted them to recognize which method is used by the teacher and how each method influences

the primary school pupils' knowledge acquisition. They opted for the video analyzing technique to make the students recognize different learning organizational methods. The obtained results suggest that the observation helped the undergraduate students understand the aims, tasks and techniques of teaching and organizing classroom work. They realized that this type of analysis helps them develop their own teaching strategies.

The section of scholarly articles is opened by Milda Ratkevičienė and her paper "Legal Framework for the Training of Health Care Specialists in the Health Care System of Lithuania to Work with the Disabled." She appeals to health care as one of the most important fields globally and which remains one of the most sensitive topics. Global organisations have calculated that one out of seven residents around the world has some sort of disability. It is very likely that due to various processes, the number of people with disabilities will increase. Therefore, the world faces a great challenge: to ensure suitable and high-quality accessibility to health care services for the disabled.

Ayhan Bulut, in the article "Raising Awareness of Disaster and Giving Disaster Education to Children in Preschool Education Period", focuses on pre-school children. The author claims that disasters and emergencies adversely influence around 70 million children worldwide and they are those who suffer the most from the consequences of any natural disaster and do not have any knowledge on how to protect themselves in such situations. Therefore, the author points out the necessity to educate and raise children's awareness in this respect. The general purpose of the research was to define the ideas of teachers who intend to bring disaster education and disaster awareness to children during the preschool education period.

Two Indonesian authors - Sholihati Amalia and Wuri Wuryandani - are the authors of the paper "Socio-Cultural Based Learning Module for Critical Thinking Ability in Elementary School: Systematic Search." They examined the use of socio-cultural based learning modules for developing critical thinking skills in elementary school children by means of a systematic review that collects data from relevant indexed journals. Their findings show that well-structured socio-cultural modules (despite their shortcomings) can provide students with many benefits, namely students who are actively involved in learning activities, and they also have the potential to attract students' to be involved in learning activities.

Dear Readers, we are offering you a wide variety of interesting topics and we hope that several of them will attract your attention. On behalf of the Editors, I wish you a pleasant summer, good prosperity and inspiration for further investigations and creative research activities.

Viola Tamášová
Editor-in-Chief

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STUDIES

Students' Resistance Behaviors: What Do Turkish Primary Teachers Face?

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Abstract:
Introduction: Students could react to the learning activities, teachers, or administrators knowingly and willfully, many times intentionally by resisting in various ways. A detailed analysis of this definition indicates that unlike naughty behaviors, resistance behaviors do not develop suddenly, they are often planned beforehand by the student, and they contain some messages to the person or institution they are directed at. These kinds of behaviors could have negative effects not only on students' academic, social, and psychological development but also on teachers' professional satisfaction. Therefore, these issues should be elaborated carefully. However, despite the importance indicated in the literature, students' resistance behaviors are one of the neglected issues that are not investigated adequately. With reference to this need, the presented study aims to identify perceptions of primary school teachers about students' resistance behaviors.
Methods: The participants were 152 primary school teachers. Data were collected through the Student Resistance Behaviors Scale for Teachers (SRBS-T) and Teacher Interview Form. In addition to descriptive statistics, data were analyzed using t-test and one-way ANOVA. Also, a qualitative descriptive analysis was conducted regarding qualitative data of the study.
Results: Results show that the mean scores for SRBS were "medium" on a 5-point Likert scale. While teachers' perceptions about resistance behaviors showed no significant differences according to gender and the type of school they graduated from, scores showed significant differences in terms of teachers' years of seniority. According to the teachers, the most encountered resistant behaviors were gathered under the themes of

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resistance to teacher authority and hostile attitudes towards the teacher/peers.
Discussion: Through discussion, the results obtained by the scale and interviews were discussed. All the findings showed that teachers are important receivers of resistance behaviors and they are facing with different types of resistance in the classroom.
Limitations: It is obvious that these results were limited to the reached primary school teachers. Another limitation was that the data within the study collected via SRBS-T and interviews.
Conclusions: The study showed that teachers and students are the key components of the educational process and students could show resistance to both the process and teachers in different ways. As this study only focused on primary teachers' experiences, more studies could be organized through understanding the resistance middle and high school teachers face with as well. Further research could be conducted with students to see how they feel and behave when they feel resistance as well as with other teachers working at various levels of education and in various institutions.

Key words: resistance, resistance behaviors, primary school, learning environment.

Introduction

By nature, an educational environment is a social environment where conflicts and cooperation relationships between students themselves and their teachers are a never ending process. When the occurring conflicts bring about discussions and reconciliations within a democratic environment, it implies a higher educational value. However, if the conflict results in resistance to various dimensions of educational process then it should be reconsidered.

1 Resistance

Sarı (2018) described resistance behaviors as intentional and sometimes viciously planned behaviors that concentrate to derail, and sabotage the flow of a lecture or active the learning-teaching process. Seidel and Tanner (2013) stated that "resistance in a classroom may be defined as deconstructive student behavior(s) that could be triggered when students are angry with the school or teacher policies, and when they are disappointed with the existing procedures or when they are left behind and blocked out of the decision making process." According to Yüksel (2004) students react to situations that do not comply with their own thoughts, lifestyles, and expectations in the school, and despite these reactions, if there is no change in these situations, they can turn their reactions into resistance. Alpert (1991) stated that resistance is used to explain and interpret various behaviors that are indicative of tensions and conflicts between the society and the school to which the students belong. Supportively,

Brookfield (2006) emphasized that this resistance is normal, natural, and inevitable, and should be properly analyzed and correctly understood.

Literature testifies that both teachers and school authorities nurture a general perception that all student resistances or revolts are deconstructive (Field & Olafson, 1999). However, it is also revealed by literature that student resistance and revolt could be both constructive and deconstructive (Kearney, Plax, & Burroughs et al., 1991; Seidel & Tanner, 2013; Sever, 2012; Zhang, 2011). The study conducted by Burroughs, Kearney, and Plax (1989) clearly supports the view that student resistance could be both constructive and deconstructive. Kearney et al. (1991) warns that student resistance should not be confused and misinterpreted with student's ordinary misbehaviors. While deconstructive resistance aims to derail the learning process, constructive resistance, if handled properly, could support the overall quality of the learning process and the learning environment. Kearney et al. highlighted that constructive resistance occurs when students are in complaints about the assigned tasks or procedures, ask questions or challenge the teacher's ideas and credibility. They also emphasized that although sometimes such student resistances irritate and demoralize the teacher, the feedback could add a healthy and productive learning progression which could help the teacher to re-evaluate his/her teaching style or teaching techniques to become a more effective teacher. According to Brookfield (2006), in educational surroundings, student resistance should be viewed as a natural course, and students should have the right to demonstrate resistance, and when teachers accept this fact they can have a better chance to constructively deal with student resistance.

Based on available literature, we can assume that students' resistance behavior is not a casual misbehavior or disorder, and it does not develop or occur suddenly. Rather, the process of resistance is a developing one. Generally, it is a planned action which carries certain messages about the person or situation at which it is directed. According to Argon and Sezen-Gultekin (2016) these types of behaviors are not developed without any reason or are unwanted behaviors, and so, they should not be misinterpreted and confused with undisciplined, bad behaviors. In the case of bad or undisciplined behavior, student's behavior is reactionary and specific to the situation whereas resistance or revolt is not subject specific, it is planned, has a history, and matured over time and can be repeated (Yüksel & Şahin, 2005). To deal with resistance issues, the teacher and the school authority should read and analyze the resisting behavior properly, to do so they need to develop working strategies that could include peaceful resolution of the problem between the student and the teacher.

In order to analyze students' resistance behavior, priority should be given to understanding of the nature of resistance behavior and how it is demonstrated to the authority. Burroughs et al. (1989) postulated 19 resistance behaviors:

1. advising the teacher;
2. blaming the teacher;

3. avoidance;
4. reluctant acceptance of the authority;
5. demonstrating active resistance;
6. deceiving and lying;
7. attempting to develop an open relationship with the teacher;
8. attempting to create a chaotic classroom environment;
9. creating excuses;
10. ignoring the teacher;
11. following his/her priorities;
12. challenging the authority of the teacher;
13. attempting to form a supportive riot group;
14. making a complaint about the teacher;
15. imitating the teacher's behaviors (talks, and bodily moves, etc.);
16. imitating the teacher's attitudes;
17. making a hostile defense;
18. refusing assigned tasks by showing evidence;
19. revenge.

Miles (2007) points out that in order to define and determine a student's resistance behavior(s), the teacher or the school authority should follow a strategy that includes the following steps:

1. communicate with the student's close environment (friends, relatives etc.) to collect valuable information about the student;
2. communicate with the student to gather information about him/her;
3. make sure and understand the issue if the student has lost a family member of another close person;
4. develop strategies that attract the student to cooperate and motivate him/her to modify his/her behavior;
5. form a support group based on relationships with on and off campus students and the beloved ones;
6. develop and finalize an action plan and follow it properly and effectively.

1.1 Reasons for resistance

Once resistance behaviors demonstrated by students have been identified, the reasons of these behaviors need to be examined. It has been noticed that in some cases of student resistance, instead of listening and cooperating with students, some teachers and administrators chose to punish students (Kim, 2010). According to Kim (2010), in order to contribute to providing equal opportunities in educational settings, both the school administrators and the teacher must pay sincere attention to students' resistance. Argon and Sezen-Gultekin (2016) argued that although in some circumstances, the resistance behavior could be related to the collision between student's childhood background and the school policies, some resistance cases can be owned by the student and the teacher

themselves. There are many factors making students feel stressed and teachers are both among the sources of this stress and can also contribute to its elimination (Hanuliaková, Hasajová & Porubčanová, 2016).

The study of Kearney et al. (1991) revealed two categories of students' resistance behaviors, the teacher-owned resistance and the student-owned resistance, and both are formed based on the student's personal preferences. Students who associate their resistance with the teacher's inappropriate behaviors are likely to place the blame on the teacher for their resistance (teacher-owned resistance). Students mostly perceive these teachers as inconsistent, boring, unenthusiastic, unprepared, and careless. On the other hand, if students perceive the teacher as competent, enthusiastic, concerned, warm and trustworthy, they are likely to associate their resistance with students' inappropriate behaviors (student-owned resistance). Brookfield (2006, pp. 217-224) stated that without identifying the sources of students' resistance behavior teachers may not be able to cultivate effective solutions that could encourage students to take part in active learning. He listed following factors that could be the causes of resistance behavior:

- poor self-image as learners;
- fear of the unknown;
- the normal rhythm of learning;
- disjunction of learning and teaching styles;
- apparent irrelevance of the learning activity;
- level of required learning's being inappropriate;
- fear of looking foolish in public;
- cultural suicide (losing their values, fear of being assimilated);
- lack of clarity in teachers' instructions;
- students' dislike of teachers.

1.2 Solutions and recommendations for student resistance

To address and effectively deal with student resistance in the classroom or in school environment, Gjesfjeld (2014) emphasized the notion of empathic education. Empathic education emphasizes the choice of specific strategies for specific resistance types while trying to understand and communicate with students demonstrating resistance behaviors. Backing up this proposal Brookfield (2006, pp. 225-233) stated that students should be well-versed about the consequences of deconstructive resistance behavior that they demonstrate. He goes on to suggest some useful and effective strategies for the teachers to be able to constructively handle deconstructive student resistances such as:

- try to sort out the causes of resistance;
- ask yourself if the resistance is justified;
- research your students' backgrounds;
- involve former resisters;
- model;

- when appropriate, involve students in educational planning;
- use a variety of teaching methods and approaches;
- assess learning incrementally;
- check that your intentions are clearly understood;
- build a case for learning;
- create situations in which students succeed;
- do not push too fast;
- admit resistance is normal;
- acknowledge the right to resist.

1.3 Importance and purpose of the study

Observable, irritating and deconstructive students' resistance behavior(s) has/have the potential to distress the entire classroom, can block and derail the educational process, and can be a negative invitation for other students to mimic the behavior (Furrer, Akinner, & Pitzer, 2014). While deconstructive resistance behaviors have a potential adverse effect on the academic, social, and psychological development of students, it may also restrain the professional job satisfaction of the teachers. For this reason, this issue deserves a keen attention. Yet, the review of literature validates that in Turkey, a very low attention has been given to students' resistance behaviors, the issue is mostly ignored or neglected and very few scholarly scientific studies have been conducted (Eroğlu, 2012; Gencel & Saracaloğlu, 2013; Sever, 2012; Sever & Güven, 2014; Yüksel, 2004; Yüksel & Şahin, 2005). Hence, no research has been conducted on primary school students' resistance behaviors. To close the gap, this study is designed to investigate the primary school teachers' perceptions of their students' resistance behaviors. In the direction of this purpose, the following questions were sought to be investigated:

1. What are the teachers' perceptions of students' resistance behaviors in their classes?
2. Do teachers' perceptions of student's resistance behaviors differ significantly according to their gender, years of experience, and the type of school they graduated from?
3. What types of students' resistance behaviors are teachers confronted with in their classes?
4. According to teachers' opinions, what are the causes of students' resistance behaviors?
5. What strategies do teachers use for resistance behavior?
6. What are the teachers' recommendations for reducing students' destructive resistance behaviors?

2 Methods

2.1 Research design

This study was conducted to investigate primary school teachers' perceptions of primary school students' resistance behaviors. To achieve this aim, a mixed data collection model was used to gather and analyze data. Both qualitative and quantitative methods were used in the process of data collection and analysis.

2.2 Sampling and study group

For a better demographic representation, Yuregir, Seyhan and Cukurova districts of Adana city were carefully chosen to conduct the study. A total of 152 teachers from six primary schools were non-randomly selected to administer the scale. Distributions of teachers according to their gender, years of seniority, and the type of school they graduated from are presented in Table 1.

Table 1

Descriptive characteristics of the participants

		N	*%*
Gender	Female	69	46.3
	Male	80	53.0
Years of seniority	0-5	3	2.1
	6-10	5	3.4
	11-15	10	6.9
	16-20	29	20.0
	21 +	98	67.0
Type of school they graduated from	Educational Institution	30	20.4
	Bachelor Completion	45	30.6
	Faculty of Education	46	31.3
	Faculty of Science-Lit.	7	4.8
	Other Faculties	19	12.9

As seen in Table 1, the distribution of the participants according to gender was 69 females, 80 males, and 3 participants preferred not to indicate their genders. As for the participants' years of seniority, 3 teachers had 0-5, 5 teachers had 6-10, 10 teachers had 11-15, 29 teachers had 16-20, and 98 teachers had 21- more years of teaching experience. In terms of the type of school the institution the participants' graduated from, 30 teachers graduated from educational institutions; 45 teachers graduated from bachelor completion programs; 46 teachers graduated from a faculty of education; 7 teachers graduated from the

faculty of science and literature; and 19 teachers graduated from other (not specified) faculties.
After the of questionnaires (scales), 16 participants (10 females and 6 males) volunteered to participate in a semi-structured (open ended) interview. The seniority level of the 16 volunteer participants was as follows: 1 participant with 6-10 years, 1 participant with 11-15 years, 4 participants with 16-20 years, and 10 participants with 21 + years of teaching experience; 2 were first-grade, 6 were second-grade, 4 were third-grade, and 4 were fourth-grade teachers.

2.3 Data collection methods and tools

Sarı's (2018) Student Resistance Behavior Scale - Teacher Form (SRBS-T), Teacher Interview Form (TIF), and Personal Information Form (PIF) were used as data collection tools in the study. The SRBS-T is a 5.0 Likert Scale (1 for never, 2 for seldom, 3 for sometimes, 4 for most of the time, and 5 for always), which is used to analyze and interpret teachers' perception of students' resistance behaviors. The SRBS-T consists of 25 items that each item refers to a students' resistance behavior, and the participants are required to report the frequencies of their observations of student resistance in their classrooms. With this scale, the highest recordable score is 125, while the lowest score is 25. The higher the score is, the greater the observed frequency of students' resistance behavior would be, in other words high scores represent a high frequency of students' resistance behaviors in the classrooms.
As a result of an explanatory and confirmatory factor analysis done by Sarı, a four-factor structure was obtained (Resistance to teacher authority, Hostile attitudes towards the teacher, Continuous anger, and Passive resistance). The Cronbach's alpha internal consistency coefficients for these four factors, which account for 62.97% of the total explained variance, were: .93, .90, .86, .78, respectively and .95 for the whole scale. The Cronbach's alpha internal consistency coefficients examined in this study were: .90 for "Resistance to teacher authority," .88 for "Hostile attitudes towards the teacher," .85 for "Continuous anger", .74 for "Passive resistance", and .94 for the total scores of the SRBS-T.
The PIF (Personal Information Form) was used to outline the personal demographics of each participant and was located on the top of the SRBS-T. The TIF (Teacher Interview Form) is a semi-structured four-item instrument that aims to identify and define various types of students' resistance behaviors (SRB) in the classrooms. Teachers were instructed to use the TIF to identify and describe students' resistance behaviors (SRBs), the reasons behind these behaviors, and the strategies that the teachers use to tackle with and to bring peaceful resolutions to classroom SRBs.

2.4 Data analysis

A mixed method was used to collect and analyze data. Together with descriptive statistics, Mann Whitney U, and Kruskal-Wallis tests were used to analyze the gathered data. Before the analysis of the final test results, Kolmogrov-Smirnov test was used as a pretest to determine whether the test scores were distributed normally or not. Results of this test were found to be .002 ($p<.05$) for the "Resistance to Teacher Authority" subscale; .000 ($p<.05$) for the "Hostility against Teachers" subscale; .000 ($p<.05$) for the "Continuing Anger" subscale; .015 ($p<.05$) for the "Passive Resistance" subscale, and .000 ($p<.05$) for the SRBS-T total scores. Since the scores obtained from SRBS-T and the subscales did not show normal distribution, non-parametric tests were preferred to analyze the data.

In interpreting the scores obtained from the scale, the group width value was recorded as 4/5 = 0.80, assuming that the scale is based on 5.0 Likert type. Accordingly; the width between 1.00-1.80 represents "Never"; the width between 1.80-2.60 represent "Seldom"; the width between 2.60-3.40 represents "Sometimes"; the width between 3.40-4.20 represents "Most of the Time"; and the width between 4.20-5.00 represents "Always." The significance level of .05 was interpreted as the criterion for evaluating the significance of the statistical findings.

A qualitative descriptive analysis was performed for the qualitative data that were obtained from the semi-structured interviews with 16 volunteer participants. The frame of this analysis was defined by four questions that were asked in the direction of the research purpose. To code the obtained data, the responses of all participants were printed in sub-alta coding. In this coding system, similar responses provided by the teachers were grouped under common themes and their frequencies were determined and tabulated.

3 Findings

In this section, both quantitative and qualitative findings obtained from the participating teachers are presented.

3.1 Findings from the Student Resistance Behavior Scale - Teacher Form

3.1.1 Teachers' perceptions about the resistance behaviors of their students

Table 2 demonstrates the arithmetic means and standard deviation distributions regarding the teachers' SRBS-T scores.

Table 2

Means and standard deviation values of the teachers' SRBS-T scores (N=152)

Subscales	*Mean*	*SD*
Resistance to Teacher Authority	2.01	.77
Hostile Attitudes towards the Teacher	1.46	.58
Continuous Anger	1.98	.82
Passive Resistance	2.24	.66
SRBS-T Total scores	1.88	.60

An analysis of Table 2 shows that the mean scores were quite low, below three, both in total scores and in the subscales.

3.1.2 Teachers' perceptions about students' resistance behaviors according to gender

According to the Kolmogrov-Smirnov test results, since the data did not show normal distribution, in comparison of teacher's SRBS-T scores according to gender, the non-parametric Mann-Whitney U test was used. The Mann Whitney-U test results of teachers' SRBS-T scores according to gender are presented in Table 3.

Table 3

Mann Whitney-U test results of teachers' SRBS-T scores according to gender

Dimensions	*Gender*	*N*	*Mean rank*	*Sum of ranks*	*U*	*p*
Resistance to teacher authority	Female	69	78.96	5448.50	2486.500	.297
	Male	80	71.58	5726.50		
Hostile attitudes towards the teacher	Female	69	71.64	4943.00	2528.000	.371
	Male	80	77.90	6232.00		
Continuous anger	Female	69	81.71	5638.00	2297.000	.076
	Male	80	69.21	5537.00		
Passive resistance	Female	69	77.18	5325.50	2609.500	.565
	Male	80	73.12	5849.50		
SRBS-T total scores	Female	69	78.86	5441.00	2494.000	.311
	Male	80	71.68	5734.00		

$p > .05$

An analysis of the values in Table 3 indicates that there were not any significant differences in the views of male and female teachers in SRBS-T subscales and total scores (U= 2486.500; 2528.000; 2297.000; 2609.500; 2494.000; p>.05). However, when we look at the mean ranks of the groups, we can see that female teachers achieved higher scores in all dimensions except for "Hostile attitudes towards the teacher."

3.1.3 Teachers' perceptions of students' resistance behaviors according to years of seniority

In the comparison of teacher's SRBS-T scores according to the years of seniority, the Kruskal Wallis-H test was performed. The results of this test are presented in Table 4.

Table 4

Kruskal Wallis-H test results of teachers' SRBS-T scores according to years of seniority

	Years of seniority	*n*	*Mean rank*	*df*	X^2	*p*
Resistance to teacher authority	0-5	3	79.33	4	2.448	.654
	6-10	5	71.30			
	11-15	10	68.85			
	16-20	29	62.95			
	21 +	98	76.29			
Hostile attitudes towards the teacher	0-5	3	64.83	4	.492	.974
	6-10	5	62.80			
	11-15	10	75.85			
	16-20	29	74.22			
	21 +	98	73.12			
Continuous anger	0-5	3	98.00	4	1.239	.872
	6-10	5	67.90			
	11-15	10	75.60			
	16-20	29	71.31			
	21+	98	72.73			

Passive resistance	0-5	3	61.50	4	3.653	.455
	6-10	5	95.40			
	11-15	10	55.55			
	16-20	29	70.60			
	21+	98	74.70			
SRBS-T total scores	0-5	3	78.83	4	1.173	.882
	6-10	5	78.50			
	11-15	10	68.50			
	16-20	29	66.45			
	21+	98	74.94			

As it can be seen in Table 3, no significant differences between the mean scores according to years of seniority were detected (p>.05).

3.1.4 Teachers' perceptions about students' resistance behaviors according to the type of school they graduated from

To compare the teacher's SRBS-T scores according to the type of school they graduated from, the Kruskal Wallis-H test was performed and the results of this test are presented in Table 5.

Table 5

Kruskal Wallis-H test results of SRBS-T scores according to the type of school the teachers graduated from

	Type of school	*Mean rank*	*df*	X^2	*p*
Resistance to Teacher Authority	Education inst. (n:30)	75.60	4	3.740	.442
	Bachelor compl. (n:45)	75.27			
	Fac. of education (n:46)	78.17			
	Fac. of science-lit. (n:7)	78.43			
	Other faculties (n:19)	56.74			
Hostile attitudes towards the teacher	Education inst. (n:30)	60.67	4	5.210	.266
	Bachelor compl. (n:45)	79.69			
	Fac. of education (n:46)	80.09			
	Fac. of science-lit. (n:7)	67.64			

	Other faculties (n:19)	69.18			
Continuous anger	Education inst. (n:30)	64.47	4	7.307	.121
	Bachelor compl. (n:45)	73.40			
	Fac. of education (n:46)	74.25			
	Fac. of science-lit. (n:7)	112.36			
	Other faculties (n:19)	75.74			
Passive resistance	Education inst. (n:30)	68.25	4	1.478	.831
	Bachelor compl. (n:45)	78.08			
	Fac. of education (n:46)	73.00			
	Fac. of science-lit. (n:7)	84.64			
	Other faculties (n:19)	71.92			
SRBS-T total scores	Education inst. (n:30)	67.43	4	2.887	.577
	Bachelor compl. (n:45)	76.39			
	Fac. of education (n:46)	77.79			
	Fac. of science-lit. (n:7)	87.64			
	Other faculties (n:19)	64.50			

The results of the Kruskal Wallis test performed to analyze the significance of the differences between the mean scores of teachers according to the school they graduated from showed that there were no statistically significant differences between the subscale scores or the total scores ($p>.05$).

3.2 Qualitative findings about the teacher's views on students' resistance behaviors

Following the scale applications, 16 teachers were interviewed. The participants were asked four open-ended questions during these interviews. The findings obtained from the analysis of the answers given to these four questions are presented one by one below.

3.2.1 Resistance behaviors that teachers are confronted with in their classrooms

The first question in the interviews was related to the kind of resistance behaviors teachers encounter in their classes. The findings obtained from the analysis of the responses to this question are presented in Table 6.

Table 6

Resistance behaviors that teachers are confronted with in their classrooms

Theme 1: Resistance to teacher authority (n:17)	*n*
Stubbornly not caring for teacher's warnings.	4
Not fulfilling the given duties intentionally.	3
Turning the deaf ear when teacher calls out someone.	2
Not being able to accept the authority of a female teacher.	2
Insisting on not going outside during the breaks.	1
Speaking up when s/he doesn't want to do assignments.	1
Skipping class just to spite the teacher.	1
Openly challenging, standing up to the teacher.	1
Insistently not listening during the lesson.	1
Perceive breaking the rules as a virtue and being proud of it.	1
Theme 2: Hostile attitudes towards the teacher/peers (n:13)	
Intentionally trying to make teacher get angry and shout.	3
Swearing at friends, pulling their hair or kicking them as if wishing to be noticed by teacher.	3
Looking into the teacher's eyes while behaving badly.	2
Seeming to have a grudge against the teacher expressed by his/her glances, gestures and facial expressions.	2
Showing the teacher that he/she is getting bored (huffing and puffing, pretending snoozing).	1
Doing the opposite of what the teacher says just to spite him/her.	1
Making jarring, redundant noise in the class.	1
Theme 3: Being continuously angry / distressed / complaining (n:9)	
Continuously complaining about something.	3
Continuously being angry against the teacher and friends.	3
Constantly being ready to fight and starting a fight with lame excuses.	2
Damaging his/her own stuff (scribbling, tearing).	1
Theme 4: Passive resistance (n:10)	
Insistently not participating in class activities or games.	3
Intentionally not doing any activity or work.	2
Intentionally doing worse than s/he can do.	2
Wasting time during the work on purpose.	1
Showing reluctance to duties.	1
Showing that s/he doesn't listen to the teacher.	1

As seen in Table 6, students' resistance behaviors that teachers encounter in class were divided into four themes consistent with the subscales of SRBS-T. The resistance behaviors indicated most frequently under the resistance to teacher authority theme were "Stubbornly not caring for teacher's warnings.", "Intentionally not fulfilling the given duties." and "Turning the deaf ear when teacher calls out."; while regarding hostile attitudes towards the teacher/peers theme were "Intentionally trying to make the teacher get angry and shout.", "Swearing at friends, pulling their hair or kicking them as if wishing to be noticed by teacher.", "Looking into the teacher's eyes while behaving badly.", and "Seeming to have a grudge against the teacher expressed by his/her glances, gestures and facial expressions.". Within continuously being angry / distressed / complaining theme, the participants pointed out behaviors such as "Continuously complaining about something.", "Continuously being angry against the teacher and friends.", and "Constantly being ready to fight and starting a fight with lame excuses."; while most frequently indicated behaviors concerning the passive resistance theme were "Insistently not taking part in class activities or games.", "Intentionally not doing any activity or work.", and "Intentionally doing worse than s/he can do". Some quotations from teachers' views are presented below.

"These are mostly children from authoritarian and patriarchal families. As I am a woman, they cannot accept a woman's authority. Besides, the father of one of my students is in prison. He is very reactive…. Seems like he takes his revenge on me and his friends… he is always ready for fight. He starts to fight with lame excuses." T3.F

"There are several students turning sometimes the deaf ear to me. They pretend like they do not hear. I know that what they want is to piss me off. Because I do not let them play football during the breaks. But if I let them, they get dirty or fight with each other. Then, I cannot cope with their mothers. 'Why did you let them!' They get revenge on me by doing this in their way." T5. M

"There is a student obstinating with me, doing the opposite of what I say. S/he does it especially when I say 'don't!' I say don't put your foot on the desk, he does and even if I stare at him, he doesn't put it down. He exactly waits for me to shout." T9.F

3.2.2 The causes of resistance behaviors according to the teachers' views

During the interviews, the second question was asked with the aim to determine the causes of resistance behaviors they encounter according to the teachers' views. The findings of the analyses of the answers for this question are shown in Table 7.

Table 7

The causes of resistance behaviors according to the teachers' views

Theme 1: Family (n:16)	*n*
Domestic violence.	4
Fragmented family structure.	3
Showing excessive attention or indifference to the child.	3
Authoritarian family structure.	2
Traditional gender roles in the family (females being overwhelmed).	2
Poor school-family cooperation.	1
Inconsistent parent behaviors towards the child.	1
Theme 2: Student (n:16)	
Students' physical and mental problems.	4
Expecting the excessive attention by the family also in the class.	3
Not being able to have healthy communication with the teacher.	2
Wishing to take revenge on teacher for punishment.	1
The wish for finishing before everyone - sense of competition.	1
Not liking the school/Not wishing to come to the school.	1
Being raised up lovelessly and indifferently.	1
Having different interests and abilities.	1
Being in preadolescence.	1
Indifference to authoritarian behaviors.	1
Theme 3: Teacher (n:7)	
Giving too much homework.	1
Not being able to work enough on rules.	1
Not being able to show the necessary love and care for children.	1
Teaching in a way not suitable for students.	1
The teacher's insufficient professional competency.	1
Not letting students to go outside for physical education classes.	1
Not being patient enough and being able to control his/her anger.	1
Theme 4: Classroom and school (n:3)	
Crowded classrooms.	1
Inadequate conditions in the classroom.	1
Lack of equipment and sources.	1

As can be seen in Table 7, the sources teachers mostly mentioned while explaining the causes of resistance behaviors, were in the family and the student. Within the 'Family' theme, teachers most frequently stated domestic violence, fragmented family structure and showing excessive attention or indifference to the child, whereas they indicated students' physical and mental problems, and

students' expectations of the same excessive attention in classroom as they experience at home as the causes in the 'Student' theme. The third reason participants presented as a source of resistance behaviors, was the teacher. Under this theme, each of the following cases was mentioned by one participant: giving too much homework, not being able to work enough on rules, not being able to show the necessary love and care for children, etc. The classroom and the school environment were the least mentioned dimension by teachers as the causes of students' resistance. There are two quotations below:

"It could be trying to get the teacher's attention thinking that the excessive attention within the family is decreased in the school and classroom. I know that s/he does this to get my attention. This student had an open-heart surgery. It could be also this illness effect." T7.F

"But probably it is because they were grown up in an authoritarian family. The funny part is that authority does not work with these children. Indeed, I am known as a very authoritarian teacher. Though, they do the same to me as well. Especially there is an English teacher, a thin and short woman…they drive her totally crazy. In their families, women have no power, so they do not listen to a female teacher." T15.M

3.2.3 The strategies teachers use against resistance behaviors

The strategies teachers use against resistance behaviors are presented in Table 8.

Table 8

The strategies teachers use against resistance behaviors

Theme 1: Teacher interventions towards students (n:30)	*n*
Talking with students and looking for common solutions.	4
Warning - scolding at each mistake - depriving of something (negative reinforcer) .	4
Showing more interest in resisting students - showing that they are valued.	4
Giving duties/responsibilities.	3
Rewarding frequently.	3
Watching closely during the tasks.	2
Ignoring resistance behaviors.	2
Asking the student to redo the assignment that is done badly on purpose.	2
Giving tasks which could help empathize with teachers and friends.	2
Showing positive example behaviors.	1
Avoiding punishments.	1
Guiding to the counseling service.	1
Cooperating with other teachers.	1

Theme 2: Regulating the learning process (n:8)	
Taking them out to the garden and setting them free when they become very tired and start to get angry.	1
Holding classroom meetings.	1
Making the course interesting.	1
Updating the plans.	1
Adapting the attainments to daily life.	1
Making instruction appropriate to exploration and creativity.	1
Carrying out different activities	1
Giving priority to students' fundamental needs and problems (hunger, toilet, etc.)	1
Theme 3: Teacher-Family Cooperation (n:6)	
Meeting with parents frequently.	5
Meeting and talking with fathers more than mothers.	1

As can be seen in Table 8, strategies that teachers used when dealing with resistance behaviors that they encountered in their classes included three main themes: "Teacher interventions towards students" (n:30); "Regulating the learning process" (f:8), and "Teacher-family cooperation" (f:6). The most frequently used interventions included "speaking with students and looking for common solutions", "warning - scolding at each mistake - depriving of something (negative reinforcer)", "giving duties and responsibilities", and "rewarding frequently." Some of the coping strategies that are used for regulating the learning-teaching process included "holding classroom meetings", "making the course interesting", and "updating the plans". The teacher-family cooperation theme included six strategies which involved "meeting with parents frequently" mentioned by three participants and, "meeting and talking with fathers more than mothers" by one participant. There are several quotations below:

"I sometimes hold classroom meetings. Everyone tells their views, criticisms about the processes in the classroom. We are learning to trust each other during these meetings. I recommend this practice to everyone. It takes time, but when the problems decrease, you win many times more than you spend." T4. M

"I believe these kinds of children can be integrated either with rewards or by depriving them of something. My student was exposed to violence by his mother and too much tolerance from his father. He lost balance. He was satisfied by material things. I forbade him to go out during breaks until he learned not to harm his friends." T10.F

"In fact, I do nothing special. I asked their fathers to come to school for a few times. I talked to their fathers because I guess the problem was caused rather by the father than the mother. I mean, these children have problems with authorities. I told them not to commit violence at home, but then I learned that fathers got even angrier. Children got even worse when their father got angry. That's why I decided to leave them alone." T15. M

3.2.4 Teachers' suggestions for decreasing the occurrence of destructive resistance behaviors

The teachers were finally asked about decreasing the occurence of destructive resistance behaviors in classrooms. Findings obtained from the responses given to this question were divided into two main groups as suggestions for schools and the Ministry of National Education (MONE) and suggestions for teachers; and are presented in Table 9.

Table 9

Teachers' suggestions for decreasing the occurrence of destructive resistance behaviors

Theme 1: Suggestions for schools and MONE (n:20)	*N*
Families should be provided with training.	4
Teachers should be given training on patience and anger control.	3
School facilities should be improved.	2
All schools should be provided with equal opportunities.	1
Classroom sizes should be decreased.	1
Conferences and training increasing the awareness of women's value should be organized.	1
Children from fragmented families should be provided with special support (guidance).	1
Students demonstrating resistance behaviors should be provided with counseling services.	1
Social and sports activities should be organized.	1
Workshops should be organized for the applied training.	1
Schools should be designed according to the students' needs and characteristics.	1
Mothers should be provided with training on becoming more conscious as a woman.	1
Teacher training for resistance behaviors should be conducted.	1
Teachers should be trained to increase their qualifications.	1
Theme 2: Suggestions for teachers (n:14)	
Parents' meetings should be held more frequently.	3
The classroom environment should enhance love and trust.	2

Classroom meetings should be held.	1
Students should be given information about the effects of their resistance behaviors.	1
Teachers should give importance to affective development.	1
Students showing resistance behaviors should be given duties and responsibilities.	1
Students' areas of interest should be identified and guided correctly.	1
Students should be directed to higher-order attainments.	1
Fathers should be encouraged to participate in parents' meetings.	1
Efforts should be made to get to know students' families.	1
Rules should be applied in a determined manner.	1

As it can be seen in Table 9, the most frequently indicated suggestions in both themes included "Families should be provided with training.", "Teachers should be given training on patience and anger control.", "School facilities should be improved", "Parents' meetings should be hold more frequently", and "The classroom environment should enhance love and trust."

4 Discussion

This study aims to identify the perceptions of primary school teachers about students' resistance behaviors. The findings obtained from the SRBS-T scale administered for this purpose showed that the teachers' perceptions were between "never" and "rarely" on the five-point Likert scale. Based on these results, teachers seemed to encounter a few manifestations of resistance behaviors in their classrooms. On the other hand, the interview results showed that teachers mentioned totally 47 resistance behaviors in the four different themes. However, considering that the interviews were conducted with 16 teachers - which means that there are two or three resistance behaviors on average per teacher - the findings obtained from the scale and the interviews were found to be parallel. Despite not being high in number, resistance behaviors mentioned by the teachers were in line with the resistance behaviors reported in literature (Burroughs et al., 1989; Sever, 2012). Here, it is important to note that the teachers were primary school teachers and the students were still young. Hence, although the resistance behaviors did not have a full equivalence; for instance, Kılıç-Özmen (2012) reported that classroom teachers working with younger students encountered unwanted behaviors less frequently than secondary school teachers working with older students. In a similar vein, results of the study conducted by Alkaş (2010) also reported that the rate of unwanted behaviors increased with the age of students. Considering that these unwanted behaviors could naturally involve some resistance behaviors, encountering a lower frequency of resistance behaviors by teachers could be related to students' younger age - a higher occurrence of these behaviors can be expected during adolescence.

Comparisons performed on the teachers' SRBS-T scores according to gender indicated no differences between the groups. This finding indicates that female and male teachers encounter similar amounts of resistance behaviors. Studies conducted by Kılıç-Özmen (2012) and Ekici and Ekici (2014) reported no significant differences between teachers' gender as for encountering resistance behaviors. On the other hand, female teachers' rates for encountering resistance behaviors were generally higher in comparison to male teachers. Although this result is not statistically significant, it indicates that female teachers encounter a little bit more resistance behaviors in comparison to male teachers. Kılıç-Özmen (2012) and Ekici and Ekici (2014) also reported similar results in their studies. The Hostile attitudes towards the teacher sub-scale demonstrated higher mean scores for male teachers. These findings might be associated with the traditional gender roles. Students might have found female teachers less authoritative and thus demonstrated more resistance behaviors. On the other hand, students might have found male teachers more authoritative, thus secretly felt anger and hatred against them. As a result, they might have demonstrated more hostile behaviors towards male teachers.

The comparisons performed in the field of teachers' perceptions according to years of experience and the type of school they graduated from indicated no differences between the groups of teachers. In this regard, years of seniority in profession and the type of school indicated no significant differences in terms of encountering resistance behaviors, and all the teachers working in the schools where the study was conducted were found to face with resistance behaviors at similar rates. Teachers who graduated from faculties of education did not show a significant difference; moreover, fell behind except for those who graduated from the faculty of arts and sciences, which is quite sad and needs to be considered. This case might have been caused by two potential reasons. First, teachers who graduated from faculties of education might analyze resistance behaviors better because they might become aware of and be more sensitive towards student behaviors throughout their four-year education at the faculty. Therefore, they might seem to encounter resistance behaviors more frequently. Second reason could be just the opposite of this case. One would tend to assume that each individual who graduated from a faculty of education becomes a more effective teacher than teachers who graduated from other faculties. But unfortunately studies do not seem to support this assumption. Various studies in available literature show that there are no differences between individuals who graduated from faculties of education and the graduates of other faculties in terms of the investigated variables; in fact, they even achieved lower mean scores. For instance, in some studies, the graduates of faculties of education did not achieve better scores compared to the graduates of other faculties regarding different variables such as classroom management (Denizel-Güven & Cevher, 2005); attitudes towards the teaching profession (Korkmaz & Sadık, 2011); and problem solving skills (Sesli & Bozgeyikli, 2015). All these findings can be

regarded as factors that indicate the need for serious revisions in the education provided by faculties of education.

The results of interviews indicate that the resistance behaviors encountered by teachers were most frequently included among the themes of resistance to teacher authority, hostile attitudes towards the teacher/friends, being always angry, problematic or complainant, and passive resistance behaviors. Examples of resistance behaviors listed under these themes are in line with the ones mentioned in literature (Burroughs et al., 1989; Sever, 2012). Teachers referred to the family, the student and the teacher as the causes of these behaviors. All these sources were reported among the reasons that cause resistance behaviors also in similar studies (Argon et al., 2016; Kearney et al., 1991; Seidel & Tanner, 2013; Sever, 2012). Showing the teacher as the third cause of resistance behaviors might partly be associated with the concern of social likeability. While individuals respond to data collection tools that require to express their own attitudes, these individuals might avoid indicating the truth and respond in a way, which is expected to be liked or appreciated by others. A number of studies that investigated into the impact of teachers on resistance behaviors also support this assumption. For instance, in their study focused on resistance behaviors, Chory-Assad (2002), Chory-Assad and Paulsel (2004), and Paulsel and Chory-Assad (2005) dealt with teacher qualities and reported a negative relationship between positive teacher qualities and the frequency of students' resistance behaviors. Teachers establishing relationships with students based on love, respect and especially justice might experience resistance behaviors less frequently (Chory-Assad & Paulsel, 2004). Paulsel and Chory-Assad (2005) investigated findings in related literature and reported that students demonstrated less resistance behaviors to teachers who established warm relationships with them, who used social strategies in behavior management, whom they liked, who used a language based on dialogues, who were fair, and who did not legalize strict teacher authority and punishment based on the problem behavior. In a similar vein, Kearney, Plax and Smith (1986) also highlighted that students worked with teachers they liked in a more compatible manner. As a matter of fact, according to Furrer, Akinner and Pitzer (2014), the most common indicator of a problem in the teacher-student relationship is students' resistance to participate in classroom activities and becoming challengers and opponents. Based on all of these research findings, there seems to be a consensus about the fact that the teacher is one of the important sources of student resistance.

Conclusions and recommendations

A number of recommendations might be presented based on the findings of this study. First of all, studies on resistance behaviors, which were not encountered very frequently at primary school level, should be conducted during secondary and high school periods, which coincides with students' adolescence period. The second recommendation is based on the fact that faculty of education graduates

belong to one of the two groups that encounter resistance behaviors more frequently. In this regard, it could be recommended that study programs at faculties of education should be enriched in a way to encompass the topics regarding the sources and management of resistance behaviors. Another recommendation is related to the limitation to be caused by the fact that the data were collected through scales that required teachers' self-report. Studies to be conducted in the future might increase the objectivity of the results by investigating students' resistance behaviors in a multidimensional manner using various data collection tools (longitudinal observations, crosswise teacher-student-family interviews, action research, etc.).

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Global Competences of Hungarian Young People in the Light of New Nationalism

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Abstract:
Introduction: In the context of national and global events of the last few years (wave of refugees in 2015, terrorist attacks, climate change, strengthening of far-right and radical parties, fake news and manipulation, etc.), the ability of making an independent opinion, making resolutions based on facts and knowledge, being able to see through the flooding information dumping, and creating the routine of selection are becoming extremely important issues. How do we think about ourselves and others, about "the Other" and "the Stranger"? More importantly, how do young people think about these social and public issues, how do they see themselves, the country and the world where they live, the present and the future that they will be shaping?
Purpose: The primary goal of the study is to examine the global competences of Hungarian youngsters aged 15-29.
Methods: For mapping global competences the data of Hungarian Youth Empirical Research (2016) are used.
Results: The vast majority of Hungarian youngsters aged 15-29 are not interested in social, public life-related or political issues. As for the examination of the questions concerning attitudes, the choice of medium options on the scales was typical, which reflect either indifference, disinterest, insecurity or the lack of knowledge that would be necessary for expressing an opinion. Youngsters are the children of the "Technological Age", online world is the most important scene for entertainment, communication, social life; however, they do not deal with public-life-related issues on their favourite social network sites. They also tend to keep distance from offline public-life, party- or political youth organisations. Among youngsters, the fear of strangers and migration is highly visible, a so-called "exclusionary attitude" describes them, global thinking is typical for only few of them.
Discussion: The study confirms the previous research statements: Political passivism is typical for people aged 15-29 as their public and social life activism is extremely low. Their distrust towards the representatives of the

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democratic institutional system is also associated with a low-level interpersonal trust. However, as for their value preferences, the dominance of traditional values (family, love, friendship) is clearly conspicuous, and the role of nation and social order is gaining more importance. With regard to all these factors, the communication and free time spending habits of the young, we can state that their public life-related disinterest does not primarily stem from their smart phone and entertainment-centred attitude but it is mainly due to their disillusionment, their social discomfort and the erosion of their future beliefs. Among youngsters, a new nationalist tendency has also appeared, which means that they value their own group more and strongly devalue other, strange groups.

Limitations: The Hungarian Youth Research, which analyses 8000 participants aged 15-29, can be regarded representative from the aspects of gender, age, education, settlement type and region. We can compare the research findings with all parts of the youth research series that started in 2000. Questions applied in the questionnaire are based on the previous waves (Youth 2000, Youth 2004, Youth 2008, Hungarian Youth 2012), so the database provides the possibility of outlining the trends.

Conclusions: Concerning the attitudes and values of youngsters aged 15-29, close-mindedness, moderate tolerance, low personal and institutional trust, keeping distance from public life, and a high degree of disinterest are typical. The young, as well as the whole society, typically claim for national isolation, and they are not really willing to collaborate with "the stranger", "the other".

Key words: OECD, PISA, youngsters, global competences, new nationalism.

Introduction

The OECD[1] (The Organisation for Economic Co-operation and Development) that brings together developed states provides a unique forum and knowledge centre to change data, statistics and experience, and to share well-adopted practices. The most important field of the organisation is education, which is basically connected with two issues: the OECD attaches a great importance to human resources and abilities in economic growth. Furthermore, they consider education as an effective tool for economic prosperity and social solidarity (Halász & Kovács, 2002).

Every three years, the organisation collects big data that highly affect the progress of developed countries' education systems. Student achievement is measured in three fields of knowledge: Reading literacy, Mathematical literacy

[1] It has been an inter-governmental organisation since 1961, which makes it possible for its members to share their policy-related problems, to have an insight into each other's policy practices and to assess each other mutually. Hungary has been a member country since 1996 (http://www.oecd.org/about/).

and Science literacy. The aim of the survey is to measure to what extent those 15-year-old students, who leave school education soon, possess skills and abilities that are essential for prospering in life, further education or fulfilling a job. In 2018, a new element was added to the latest survey[2], global competences (http://www.oecd.org/pisa/pisa-2018-global-competence.htm) of 15-year-old students are also measured. In other words, those attitudes, knowledge elements and values are assessed that can reflect global knowledge of students. It is highly important to know whether students are able to analyse local, global and intercultural issues, whether they are capable of understanding viewpoints of other peoples who belong to different cultures, whether they are able to make themselves understood, and whether they can work together with people coming from a different country, culture or religion. It is also noteworthy whether respecting human dignity and diversity is important to them, whether they can responsively handle diverse media platforms, how they can see through fake news and find their way in the world of opinion bubbles, whether they are aware of the dangers of global warming or xenophobia, whether they can take responsibility for sustainable development, for a liveable, fairer future. Project Zero Institution[3], the organisation dealing with educational innovation at Harvard University Faculty of Pedagogy, took part in elaborating the framework.

According to the OECD, youngsters should be prepared for an inclusive and sustainable world, where it is getting more and more important for people belonging to diverse cultures and religions to work together effectively, to trust each other in spite of the differences. The Cognitive Assessment Test was not filled in by the Hungarian participants, but the assessments measuring media consumption and cultural attitude were[4].

In our opinion, teaching students to take global responsibilities is particularly important at diverse levels of school education. Schools play a decisive role to help with developing global competences as they should teach youngsters to develop the ability of having fact-based critical thinking, they ought to popularise diversity, the value of emphatic understanding, encourage students to get to know different cultures, customs and worldviews. Youngsters grow up as citizens of a globalised world; they face such challenges of the 21st century daily as environmental protection, climate change, migration, regional conflicts, more and more intensive religious conflicts, social and global inequalities.

[2] From 26.03.2018 to 27.04.2018 altogether 81 OECD members took part in the assessment.

[3] The project was based on the comprehension of the nature and development of human cognitive potential, from intelligence, ethics, creativity and thinking. (https://www.gse.harvard.edu/news/17/12/pisa-2018-test-include-global-competency-assessment)

[4] Global Competency Assessment Test was not filled in almost half of the participant countries (https://www.bbc.com/news/business-42781376).

Youngsters' awareness plays a key role in these matters; moreover, it is also vitally important that their interest and curiosity should be aroused as they have to adapt themselves to ever-changing circumstances in a flexible way, and they also have to be able to take part in public matters, and future-shaping.
It would be extremely crucial in Hungary now, where those tendencies have appeared in the last few years which are in sharp contrast with global thinking and responsibility-taking: national isolation opposed to collaboration, new nationalism encouraged by governmental political propaganda, which formulates and reinterprets national identity built on national pride. Old-fashioned and negative interpretations of national identity have appeared again recently.
Furthermore, in our opinion, not only should the 15-year-old students' knowledge be tested and assessed but also the whole young generations'. In our research paper, with the help of utilising the big data collection of 2016 youth research, we attempt to gain a clearer picture of how people from age 15 to 29 react to the issues of the globalised world economy and society in the 21st century. How the individual thinks about issues related to multicultural societies or globalisation is determined by the individual's political belief. Regardless of what political party the individual belongs to and what religious beliefs he/she has, it is without doubt that these matters have become the central issues of our world today. Global competence is also about how much youngsters can feel that our surrounding world has dramatically changed.

1 Theoretical starting points

We tend to consider globalisation as an especially complex, standardised process evoked by technological development, and primarily its economic, political and cultural aspects are examined. We pay particular attention to the phenomenon of homogenisation, which is the consequence of cultural and financial globalisation, and it entails the appearance of a common consumer culture. Critics of globalisation are opposed to this phenomenon mainly as they point out that these processes go hand in hand with identity disappearance of countries and peoples (T. Kiss, 2008). The phenomenon of multicultural society is closely connected with globalisation tendencies. As a matter of fact, centuries ago, it was a known phenomenon that diverse cultures, languages, customs, traditions, religions and lifestyles coexisted and even mixed together, however, the evolvement of multicultural societies became a world-wide, more intensive process only after the Second World War (from 1960-70s). Globalisation goes hand in hand with a more dynamic employee-turnover, a common market, common currency, and even with diverse conflicts and more and more intensive migration processes. The economy and the population of a country depends on the changes in other countries and societies; to put it differently, it is the era of interdependency, the era of mutual and international dependence. The world, where we live, has been dramatically changing in the 21st century. Not only does globalisation not eliminate ethnic, national and religious differences in the

world but it intensifies them. At the end of the 20th century and at the beginning of the 21st, a new world order appeared where the war is not between classes but among civilisations if we want to refer to Huntington (Csepeli & Örkény, 2017).
Locality problems seem to merge into global problems nowadays, and nobody could think that it is only their problems and it does not affect anyone in Europe if Siberian forests or Amazon rainforests are on fire, or the air is irrespirable in China. Youngsters are getting socialised in an environment-conscious world, where warming atmosphere, melting glaciers, natural disasters, floods and storms are getting more and more common. From the deserted flooded or war-stricken zones, millions of people head for less dangerous or seemingly secure areas. "Besides this, due to the world-wide information network, distances disappear among people, which make the unfair distribution of goods visible" (Csepeli, 2016, p. 510).
As a result of globalisation and technological advancement, no matter where the young live, they are formed by exactly the same trends, technologies and events, they use social media and online technology actively as geographical and cultural distances do not divide them into groups. From China through Buenos Aires to Brisbane, they check the same websites, download the same music, watch the same movies and are influenced by the same brands (McCrindle &Wolfinger, 2009).
The first global generation of the world was born, who can have common experience, considered as a generational factor by Mannheim, without any geographical limits.
Empirical research also suggests that this young global generation has strong responsibility-consciousness. Due to abundant and unlimitedly available information, they are aware of the issues of our globalised world, and Generation Z, who were born after 1995, expect from manufacturers to pay attention to what effects brands and goods have on the environment, for example, carbon-dioxide footprint. Furthermore, members of the generation already denied buying certain products or using specific services offered by some manufacturers because they had thought that their effect would be negative on the environment (see Global Millennial Survey 2019, Grail Research 2011).
In sociological research, attitudes related to ethnic, national and minority group members are assessed with a so-called social distance scale[5]. The notion of

[5] In 1928, the first social distance scale was made by Bogardus, with which more examinations were carried out later in the US. Bogardus was sure that the function of distance-keeping between groups was not only for maintaining social status. The scale made by Ezra Park assumed that people felt different degree of resentment, remoteness and distance towards national-ethnic groups, and this distance could be characterised with lack of communication and interaction. Bogardus ranked the most important interactive-communication samples with regard to how much they sign "closeness" or

social distance has a long history in social - psychology. The degree of remoteness between a member of one social group and the members of another can be determined by the accepted interactions from the individual's perspective, and it is possible to draw conclusions about the degree of judgments and discrimination towards the other group (Csepeli, Fábián, & Sik, 2006). As a result, the social distance between the groups is steady, which means that by using standard social variables - including ethnicity - it shows invariability, and it is a fairly stable phenomenon in time.

When we perceive diverse groups of people in society, the perception is simplified and accelerated by categorisation. Categorisation is a typical feature of human thinking; as a matter of fact, it is a kind of urge so as to estimate the likelihood of the occurring events in our human relationships. According to Allport (1977), with the help of categorisation, people simply adapt themselves to abundant, unprocessed information. It helps with fast identification, which means that people are able to react to certain situations in time, so their behaviour is said to be rational as it is based on likelihood.

During categorisation, the differences between groups are exaggerated. By exaggerating the empirically existent differences, it is possible to arbitrarily extrapolate the differences referring to those dimensions that are said to be empirically unavailable or difficultly available (for example, intelligence, temperament, personal traits). The perceiver of human groups is also a group member, so his categorisation is based on the most simplified and oldest distinction: the difference between his own group and the strange one. As a consequence, value differences also appear (Csepeli, 2001). In the case of in-group, the role of a symbolic community, tradition, and values are more determining while in the case of out-group, labour market competition, threatening feelings connected with globalisation, effects of globalisation on everyday situations and lifestyle together with personal or group-level socio-demographic influences are more prominent (Tardos, 2016). Positive identification with in-group appears in the form of national pride, and the causes of national pride can be the diverse fields of reality formed by national existence[6]. Nationalism integrated into national identity, which originates from national pride, makes it possible for the individual to regard himself superior to the members of other nations regardless of what abilities and achievements the individual has (Csepeli & Örkény, 2017). As a rule, specific historical events

"remoteness" towards a specific person identified by group categorisation (Csepeli, 2001, p. 127).

[6] Themes that can be connected with National Pride: (1) Facts that cannot be justified empirically, symbolic themes such as historical successes, cultural and scientific achievements, sport successes. (2) Themes of classical modernisation such as economic growth, political influence in the world. (3) Postmodern values such as democracy, human rights, wealth (Csepeli & Örkény, 2017, p. 45-46).

result in nationalism and xenophobia, which can be regarded as answers for diverse challenges that affect the society. The refugee wave 2015 followed by the crisis of the European Union intensified the role of far-right, national, populist parties as they became more and more popular, and in the meantime, racism, white supremacy, homophobia, and anti-Semitism occurred in common talk more often.

2 Methodological outlook: the sample and the variables adapted in the analysis

For mapping global competences assessed by the OECD, the data of Hungarian Youth Empirical Research (2016) are used[7]. The Hungarian Youth Research has been organised every four years since 2000, which collects data about the situation, the most important events and specific problems of Hungarian youngsters aged 15-29. 8000 youngsters were examined in 2016 as well, so the sample can be considered representative according to gender, age, location and settlement type[8].

For mapping global competences that are characterizing the pattern of Hungarian youngsters, we adapted the following variables from the available database:

I. Socio-demographic variables
   - Demographic data: gender, age (3 categories)
   - Social strata: education (3 categories), economic status (3 categories), subjective material situation (5 categories)
   - Regional status: type of settlement (4 categories), region (7 categories)

II. Ideological-political identification, perspective orientation
   - Ideological left-wing or right-wing[9], liberal-conservative, moderate-radical, thinking from the nation's point of view and from mankind's point of view (1-7 point-rating scale)

[7] In 2019, empirical big data research among the youngsters of Generation Y and Z was carried out by Deloitte, and he examined similar questions. Sadly, the sample did not contain any Hungarian youngsters (https://www2.deloitte.com/global/en/pages/about-deloitte/articles/millennialsurvey.html).

[8] Sample-taking consists of more steps, done with stratified probability sample survey. During the sample, four sub-samples are taken, each consisting of 2000 persons, which represent the settlement structure of the country with regard to location and settlement-size. Participants were selected based on two aspects: gender and age. In order to avoid minor distortions, weighting procedure was applied, during which school education was taken into account. As a result, both the master and the sub-samples referring to youngsters aged 15-29 can be regarded representative with regard to gender, age, school education, type of settlement and region (Székely, 2018).

[9] "Please characterise yourself with the help of feature-pairs." 1- liberal 1-conservative 1- left-wing 7- right-wing 1- moderate 7- radical 1-thinking from the nation's perspective 7- thinking from the mankind's perspective.

- Institutional[10] - personal trust[11]

III. Attitudes towards strangers, own group, communities
- Social distance[12]
- Attitudes towards own group and strangers

IV. Interest towards issues related to society, public affairs, responsibility-taking, activism.[13]

During the analysis, we mainly examine the interest related to public affairs and social issues and analyse the role of determining factors. Later, we map to what extent youngsters are connected to offline organisations, how active they are, and it is also checked to what extent they have trust in diverse social institutions. The final step of the empirical research is to reveal the attitude of Hungarian young people aged 15-29 towards Hungarians and strangers, and to examine what thinking patterns they have.

3 Research findings

Youths can be characterised by similar features in every era: experimental lifestyle, questioning status quo, idealism, pushing the boundaries, however, it cannot be stated that those youngsters who grew up in the 70s are the same as those ones who grew up in the 90s or nowadays. Youngsters participating in the big data youth research are the members of Generation Y and Z, who are characterised by different attributes due to diverse social, economic, political and cultural influences that are typical for a given country. The members of Y generation are called Millennium, Google, MySpace and Dot.com in western

[10] "How much do you trust the following: absolutely, more yes, more no or not at all? Constitutional Court, the President of the Republic, the Parliament, the government, politicians, NGOs, the Hungarian Defence Forces, churches (in general), police, courts (in general), the mayor of the settlement (or district), banks, insurance companies.

[11] "How much do you trust the following: absolutely, more yes, more no or not at all?" people in general, your family, neighbours, acquaintances.

[12] "What kind of closest relationship would you accept with one-one member of the mentioned social groups?

[13] "How often do you speak about public affairs or social problems with your family members?" "And how often do you speak about public affairs or social problems with your friends or acquaintances?" 1-regularly 2-occasionally 3-never.
Question referring to organisational participation and commitment: "Organisations, communities and groups are listed below. Please tell us whether you joined any organisation, foundation, voluntary union, group, movement or community. For example, think it over whether you took part in any kind of work, activity related to an organisation, whether you went to any kind of events related to an organisation, etc. Did you join...?"
Question referring to an active activity: "Different activities are listed. Please tell us whether you joined any of them."

societies, Pope John Paul II Generation in Poland, "ken lao zu" or in other words, the generation who eats the old, Ni-Ni in Spain, "ni trabaja, ni estudia" meaning they neither learn nor work. Generation Z is called "digital aboriginals" as they have not lived in a world where there is no mobile phone or internet (Fekete, 2018, p. 82). According to the data of Hungarian Youth (2012), young people aged 15-29 are called "a new silent generation"[14] by Levente Székely (2012, p. 18), and silence can be found in different social environments, so even in alternative social environments like in the field of civil, public life activism. With regard to the trends, it can be stated that the number of unsatisfied youngsters who expect a gloomy future is increasing, however, this dissatisfaction does not appear in political activism as youngsters do not have any coherent reflective reactions (Székely, 2012, p. 25).

3.1 Interest towards public affairs and social issues

Abundant information, empirical analyses and theories are available about the interest of young people aged 15-29 towards social institutions, political systems, politicians and their political, public life culture (Csákó & Sik, 2018; Gazsó & Laki, 2004; Murányi, 2013; Oross, 2012). Previously conducted youth research based on big data collection showed that the political interest of Hungarian youngsters was steadily low. Most research pointed out that disinterest in politics, political passivism; strengthening negative opinions about politics and very low level of social-public life activism were typical for the young. In Hungarian youth research (2016), in order to get a clearer picture about the connection to the society, public life interest, the extent of the integration to different civil and political organisations, researchers asked numerous questions. Figure 1 depicts that most youngsters are not interested in public affairs and social issues, only 15% say that they are interested or more or less interested in the issues, while almost the half of them (47%) state that they have no interest towards the reality in which we live (either not interested or not that much interested). Most participants prefer the so-called "neutral" medium options. Hungarian youngsters typically choose the medium options (38%), which can be the signs of indifference, disinterest, insecurity or the lack of necessary knowledge. This attitude can be recognised later, in the case of further research questions as well.

[14] The Silent Generation is formed by people born between 1925-1942, whose socialisation was determined by the Great Depression and World War II. They are grey collar conformists, the parts of the lonely mass, who accepted their parents' traditional civic values and culture (Fekete, 2018, p. 78).

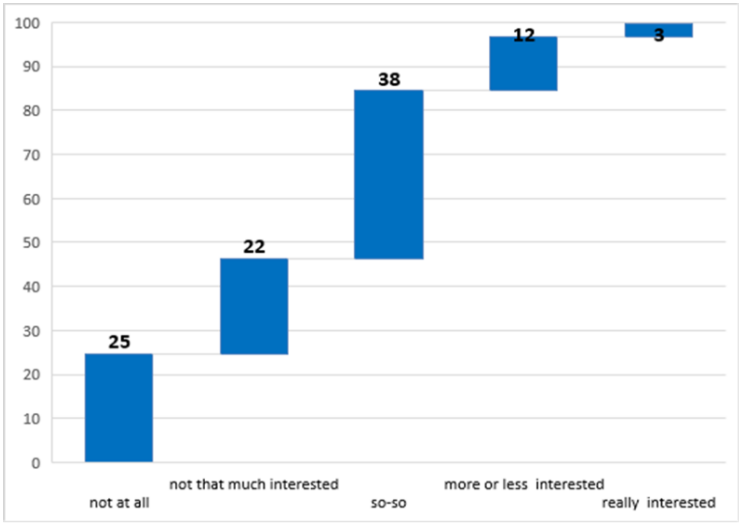

Figure 1. "How much are you interested in public and social life-related questions?" (%) (N=2.025).

In the information society, where every piece of information is available limitlessly regardless of time and place, where free time is mainly spent with telecommunication and entertaining electrical devices by youngsters, where time spent with friends is as important as time spent on Facebook or chat; family, friends and the Internet are the most significant sources of information for young people aged 15-29 while the least important sources are books and printed newspapers for them (Table 1).

Table 1

Judgement of the validity of information resources (N=1.827)[15]

	Mean	*Deviation*
Family	4.48	0.77
Friends	4.34	0.83
Internet	4.31	1.07
Television	3.74	1.20
Online social network sites	3.50	1.35
Radio	3.08	1.31
Books	2.85	1.37
Local (where you live) clubs, social	2.43	1.28

[15] 1-5 point rating scale, where 1= not important at all, 5=absolutely important.

organisations, religious communities		
printed newspapers	2.37	1.31

In connection with it, we also examined how often they speak about public affairs and social issues with their family members and friends, who actually are their primary relations. More than one quarter of the examined youngsters never speak about public affairs or social issues[16], more than half of them (63%) talk about these issues only occasionally (Figure 2). Almost one tenth of young people speak about public affairs or social issues regularly during conversations with family.

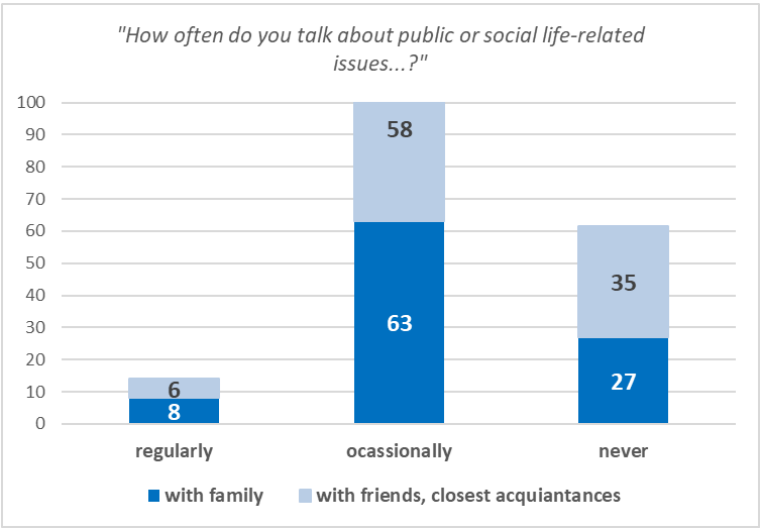

Figure 2. The frequency of conversations about public and social life-related issues (%) (N=2.025).

As far as the conversations with friends are concerned, the situation is less favourable as more than one third of the examined youngsters never speak about these issues with friends. More than half of them occasionally and only 6% is the ratio of those who regularly talk about social problems.

Nowadays public affairs and political activism are getting more and more widespread, and the most popular form of it is online commenting. The data of the research carried out in 2016 reveal that cyberspace is not limited for the young by lack of devices as 85% of youngsters have a computer and a smart phone, 87% of them have broadband internet subscription at home. Almost one

[16] People aged 15-19 and people with low school education (63%) overrepresented. Every second person lives in the Northern Great Plain or in the middle of Hungary.

quarter of the participants (24%) are always available and are online perpetually; furthermore, almost half of them (43%) are connected to the internet several times a day (Fekete & Tibori, 2018, p. 264). The questions examining the connection to diverse social network sites show similar tendencies to the availability of ICT devices. More than three quarters of youngsters (79%) are members of a social network site, and they basically use it for entertainment and getting information (Table 2).[17]

Table 2

The primary aim of using social network sites[18] *N=8.000*

	Number of elements	*Mean*	*Deviation*
Entertainment	6115	3.42	1.932
Asking for help, advice	6110	1.81	1.710
Keeping business (job-related) contacts	6099	1.21	1.704
Looking for jobs	6102	1.00	1.471
Getting information about local news	6117	2.62	1.898
Getting information in general	6116	3.08	1.898
Looking for a boyfriend/girlfriend	6090	0.75	1.347

Most popular social sites have been functioning as social news servers in the last few years; however, at the beginning, this was not their original goal. As a result, youngsters think that news is what appears on Facebook, what is liked and shared by most people. In parallel, the validity of news has not become the primary aspect. It is also apparent that people aged 15-29 do not intend to map public life-related issues primarily on the Internet. 68% of them never search for this kind of information; furthermore, three quarters of them never share any news or opinions related to public life (Figure 3).

[17] The most popular is Facebook; the participants have 514 acquaintances on average (Tóth, 2018, p. 296).

[18] 1-4 point rating scale where 1= several times a day, 2= once a day, 3=once a week, 4=more times a week, 5=more times a month, 6= rarely, 7=never, hoping for a better understanding, the scale values were changed by Transform Record method.

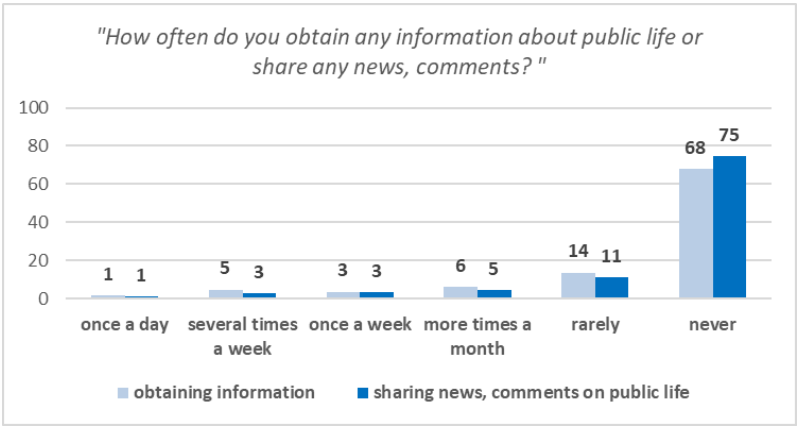

Figure 3. Obtaining information about public and social life-related issues on social network sites, sharing news (%) (N=3.253).

The database of 2016 youth research does not contain any questions concerning why the young can proper in the world of "fake news." Due to human naivety, disinformation, partiality and social network sites, we are living in a world where fake news is continually spreading and people are deceived deliberately. Additionally, as a result of the application of web 2.0, those people have appeared who deliberately produce fake content, fake news, so-called media hacks. Handling the exponentially growing information mass makes users face serious challenges. Competences concerning assessing and selecting information are quite diverse: people have to judge whether the given information is valid, accurate or up-to-date. The routine of assessing information sources has become one of the central pillars of information education and literacy. It is necessary to teach the young how to assess sources, and schools could be the best places for it. Youngsters have to learn what sources are trustworthy, what the difference is between a serious media product and a propaganda site, how certain they can be whether their views are based on real facts or someone just wants to influence them.

3.2 Joining offline communities

In Hungary, information society was established due to a political, economic, social and technological change after the change of regime. As a result, similarly to Western youngsters, the Hungarian young also started to prefer individual lifestyle more and more, and they exited from the previously compulsory youth organisations, communities.[19] They spend their leisure time in their privacy, in

[19] See Pioneer Movement (HYCL: Hungarian Young Communist League, YWL: Young Workers' League).

the "holy trinity" of the Internet, television and friends (Fekete & Tibori, 2018, p. 60). As far as the tendencies concerned, youngsters' willingness to participate in the work of different political and non-governmental organisations is low.
Based on the data analysed in 2016, we can state that this is an ongoing tendency. We cannot really measure youngsters' participation in any public life, party or political youth organisation (Figure 4). Among young people, most popular organisations are those ones which are related to sports as more than tenth of the young are members of a sports club. 9% of them are members of a student organisation, and the third place is for culture organisations (5%).

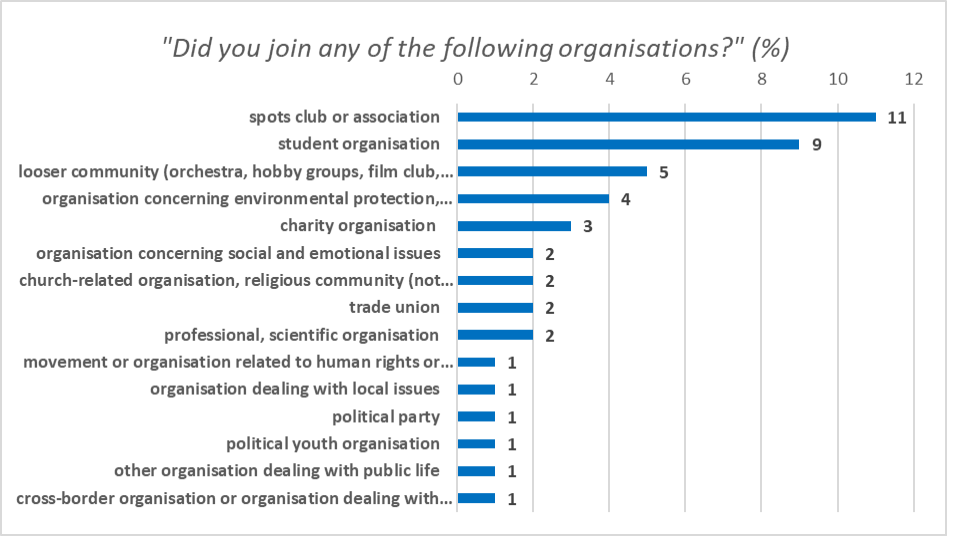

Figure 4. Young people's attitude to diverse organisations (%) (N=2.025).

Previous youth research reveals that political participation is unpopular among people aged 15-29, the direct democratic participative forms like petitions, demonstrations, flash mobs, and taking part in politics concerning certain issues are relatively unimportant (Oross & Monostori, 2018; Oross, 2012). However, data (2016) show that even these direct forms are not able to attract the young: the simplest way is to collect signatures but only 6% took part in it, while 2% participated in a spontaneous or previously-announced demonstration (Figure 5).

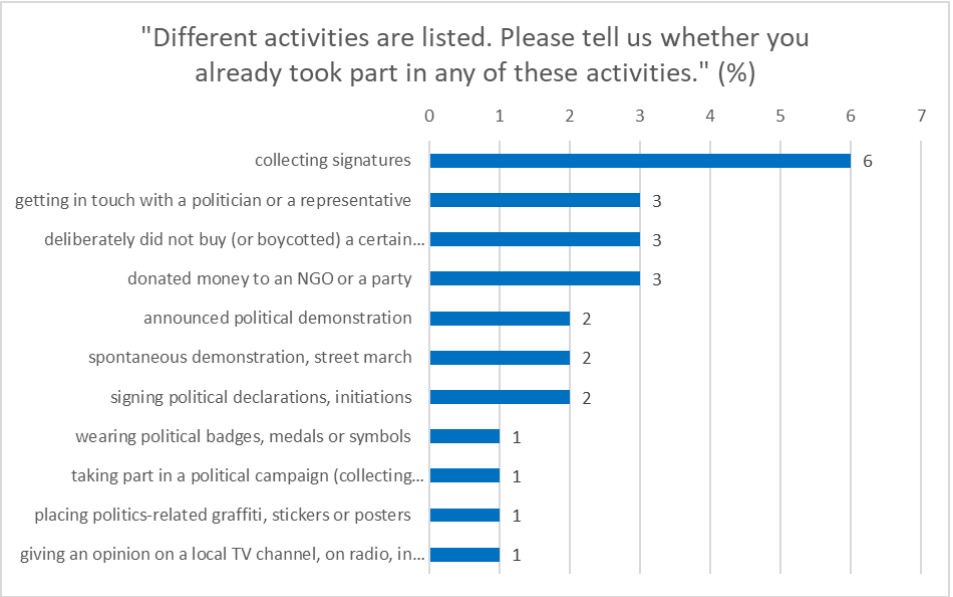

Figure 5. Participation in public affairs, political life by youngsters aged 15-29.

This has been a long, ongoing process, and it seems that there is a relatively little chance for reversing the trend. In the light of the foregoing, we can state that the little interest of youngsters aged 15-29 towards public and social life- related issues goes hand in hand with low social/public life activism.

3.3 Institutional trust

Trust in the members of democratic institutions clearly determines young people's views on politics, public life and organisational membership. Low trust level means legitimacy problems in the political system. One of the main arguments of politology is that politics needs some kind of social support, or at least acceptance. Higher level of trust in institutions and legitimacy increases the collaboration between the government or the state and the citizen (Boda & Medve, 2012). Trust refers to the belief that people or institutions will more likely to act as it is expected socially. Both the whole Hungarian society (Gerő & Szabó, 2015, p. 44), and the young have distrust in Hungarian political institutions, especially in politicians; the young, as well as the whole population, only have trust in the Hungarian Defence Forces and in the police (Table 3). The level of personal trust is even lower than trust in law enforcement forces as every fourth youngster thinks that it is impossible to trust people.[20]

[20] 65% of people aged 15-29 either do not really trust people or do not trust people at all.

Table 3

Institutional trust among young people aged 15-29[21] *(N=6.484)*

	Mean	*Deviation*
In the defence forces	2,96	0,83
In the police	2,88	0,83
In the mayor of the settlement (district)	2,87	0,82
In courts	2,80	0,85
In Constitutional Court	2,75	0,87
In the president of the republic	2,75	0,89
In NGOs	2,73	0,86
In churches (in general)	2,59	0,93
In the Parliament	2,52	0,90
In the government	2,43	0,92
In banks, insurance companies	2,42	0,89
In politicians	2,17	0,90

With regard to the given responses, we argue that not only a selfish, indifferent, superficial, smart phone and entertainment-centred behaviour is in the background, which results in disinterest in public life, but also disillusionment, discomfort, and erosion of trust in the change of future. In the complicated frames of society-being, in the experienced unequal relations, in the web of norms and values, in the maze of social issues, abandoned young generations are disinterested, they rightfully feel that they do not have a say in public life and their opinion does not matter at all.[22] If they happen to make some criticism, they are not taken seriously at all. Should they get national publicity due to the Internet or any social network sites, they will be cruelly judged and ignored.[23]

[21] 1-4 point rating scale where 1= not trust at all, 4= absolutely trust.

[22] According to nearly two thirds of Hungarian youths, they have no say in either national (34%) or local politics (31%). Only a small minority of the participants think that they have a say in either local (7%) or national politics (7%).

[23] Without being exhaustive, some examples from the recent years, (1) "the coffee-maker" Luca, who wrote a desperate post on Facebook after the 2018 national elections: "...being 22, I can't see my future. Because in my home country, here in Hungary, there are no future prospects for a 22-year-old youngster who will get her degree paper soon, which is actually not worth anything here. Because in my home country, people who work hard have to fight for making ends meet from day to day. In my home country, it is only possible to dream about a coffee-maker. I hope I will be able to buy one abroad..." As the post was spreading fast, Luca was threatened, some people attempted to discredit her, and she was dissuaded to move abroad. (2) Blanka Nagy, the 18-year old schoolgirl, who delivered a passionate speech containing hard arguments in an anti-

Hence, it may seem to them that they only matter because of their reproductive ability[24].

3.4 Problem perception

Besides the OECD competence assessment, other international empirical research[25] focusing on the youth also examined youngsters' problem perception in the recent years: how do they perceive the world, what do they want to do in order to solve the problems? According to the participating youngsters, climate change and environmental destruction cause the biggest problems[26] followed by wars, unemployment and income inequalities.

Since the millennium, almost all of the big data youth research contained some questions concerning Hungarian youngsters' problem perception. 2016 dataset show that the most significant problems for the young are in connection with existence, lack of prospects (57%), material problems, insecurity, poverty (45%). Then the list is followed by the feelings caused by different deviant demeanour, such as concerns of drug and alcohol consumption (23%), which are probably in connection with the previously mentioned two problems. At the end of the list, there are the problems concerning lifestyle and the condition of the environment, merely 1% of the young perceive them as worrying problems (Fazekas, Nagy, & Monostori, 2018, p. 328). It is likely that this result was caused by the way of the question-posing. The option related to concerns of the environment was the following: "The bad condition of the environment (poor air quality, dirt)." This context cannot reflect youngsters' anxiety related to climate change caused by perpetual warm weather records and the recent environmental disasters that predicted a quite dark future. We suggest that during preparing the next questionnaire in 2020, researchers should take these aspects into account

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government demonstration in Kecskemét, got national publicity. Against her, the government media started a smear campaign.

(3) Zsigmond Rékasi, a young activist, who took part in the 2018 demonstrations in April. Proceedings against him were initiated many times saying that he had committed urban vandalism.

[24] See the policies of the period (2016) aiming to increase birth rates: new home ownership program (2016), launching childcare allowance extra, encouraging people to get married with the help of tax relief, increasing family tax benefits.

[25] See: Global Shapers Annual Survey 2017 (http://shaperssurvey2017.org/static/data/WEF_GSC_Annual_Survey_2017.pdf and Deloitte Millennial Survey 2019 https://www2.deloitte.com/hu/hu/pages/emberi-eroforras/articles/millennialsurvey.html)

[26] According to Deloitte Millennial Survey, 29% of the young say that this is the biggest problem for the youth. According to Global Shapers, almost half of the young (49%) think the same. According to GSA, the following problems are world-wide conflicts, wars, and inequality issues (poverty, discrimination) According to Deloitte Millennial Survey, after the climate change, unemployment, income-inequalities and terrorism mean the most serious problems for the young.

and let subjective viewpoints appear in the problem perception, in particular those that are related to climate change.

3.5 "We" and "the Others"

International research papers depict that Hungarian people are quite dismissive and longing for isolation. Hungarian people do not intend to accept anyone, such as foreigners, homeless people, the poor, gipsies, people belonging to another religion, the handicapped, homosexual or people who can be considered as "more different" than "the ideal" image of Hungarians (Messing & Ságvári, 2016). Numerous empirical studies examined the reasons for it (see Sik 2016a; Csepeli & Örkény, 2017; Keller, 2009), and the determining factors were social status, education, societal objectives, economic exposure, existential insecurity, the impact of mass media, party sympathy, political ideologies, and the peculiarities of the Hungarian educational system.[27]

In the introduction, it was mentioned that school education lacks teaching the young global responsibility-taking, tolerance, open-mindedness, accepting "other" people, unfortunately. As far as the Hungarian school education system is concerned, a selective (see Radó, 2007; Radó, 2018; Lannert, 2018; Messing & Ságvári, 2016) "easy to teach", homogeneous education environment evolves due to the different adopted selective mechanisms, and it is common to use competitive school methods. These factors result in a dismissive behaviour towards others, enhance non-acceptance, competition, encourage youngsters to defeat each other, and they do not teach the young how to collaborate.

As for the results of the last wave of the youth research, concerns related to xenophobia,[28] strangers and migration are typical among youngsters. It is not surprising at all as the recent migration crisis together with the related governmental communication[29] and the European terror attacks may have contributed to this result. Chart 6 depicts that the most accepted people for the participants aged 15-29 are cross-border Hungarians, but social distance towards them is fairly big: they could only think of them as colleagues or neighbours (average scale value: 3.8).

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[27] As for the peculiarities of the Hungarian education system, see Trencsényi, 1994; 2017.

[28] Xenophobia can be defined as the furthest point of social distance between the majority and the ethnicity, the so-called national minority.

[29] At the beginning of 2015, the Hungarian government launched an anti-migrant campaign targeting the whole population, which primarily blamed migrants for the terror attack in Charlie Hebdo's editorial office in January. Then more national consultations were held about migration. All of these happenings strengthened governmental messages: immigration and terrorism cannot be separated from each other, employees can lose their jobs because of incoming migrants, higher crime rate is caused by immigrants in the country, and the potential victims are women.

In Hungary, for many years, the most rejected people were gipsies; however, the situation has changed a lot recently. Cross-border Hungarians, and gipsies followed by Jewish people who can be accepted more, however, this relative "closeness" refers to the area of a workplace or a settlement. Youngsters aged 15-29 keep the most social distance from refugees, Muslims, illegal immigrants and migrants (Figure 6). The most rejected people are illegal immigrants (6.1) and migrants (6.2 average scale value), which is probably closely connected with the governmental rhetoric and the moral panic generated by mass media (Sik, 2016b).

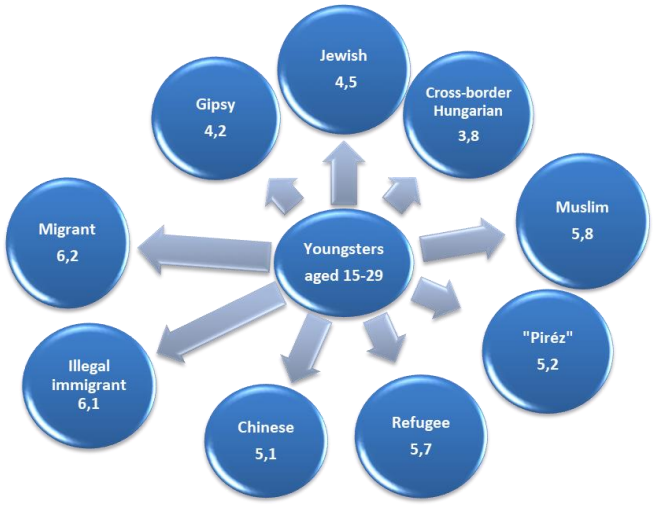

Figure 6. The desired social distance by people aged 15-29 (average scale value)[30] (N=2.025).

Every second youngster (51%) would not let a migrant enter the country, almost half of the young (46%) would not let a migrant in, and 40% would not let a Muslim cross the border (Table 4).
The hierarchy of certain categories seems to be conspicuous in the case of Muslims, illegal immigrants, refugees, migrants and "the Pirez"[31], fewer and

[30] Chart: own construction. Participants had to determine the distance that they could tolerate between the listed people and themselves on a 7-point rating scale. 1= would accept him/her as a family-member (as a boyfriend/girlfriend, as a spouse), 2= only as a flatmate, 3= only as a colleague, 4= only as a neighbour, 5=would only live with him/her in the same settlement (town/ village) 6= would only live with him/her in the same country 7= would not live with him/her in the same country.
[31] Imaginary group of people; in 2006, Tárki's colleagues attempted to estimate the extent of xenophobia in Hungary with the help of this fictive group of people.

fewer people would let them closer. We are experiencing a loss of hierarchy in the case of gipsies and cross-border Hungarians as more people would accept a Roma or a cross-border Hungarian as a spouse than as a neighbour.

Table 4

Social distance (%) (N=2.025)

	Would accept him/her as a family-member (boyfriend, girlfriend, spouse)	*Only as a flatmate*	*Only as a colleague*	*Only as a neighbour*	*Would only live with him/her in the same settlement (town/ village)*	*Would only live with him/her in the same country*	*Would not live with him/her in the same country*
Gipsy/Roma	16	3	11	10	25	12	13
Jewish	9	5	10	14	19	14	13
Pirez	2	3	5	7	14	11	19
Muslim	2	2	4	5	14	16	40
Cross-border Hungarian	19	6	12	16	14	10	10
Illegal immigrant	1	1	3	5	12	17	46
Chinese	3	3	7	12	25	20	17
Refugee	2	1	5	7	17	20	34
Migrant	1	1	4	4	10	13	51

As for the happenings of the last few years, it is conspicuous that new nationalism is getting widespread in governmental policy in Eastern-Middle Europe, and also in Hungary, and radical national right-wing political organisations are becoming more and more active and they are gaining political ground world-wide. Our national governmental communication pervaded by new nationalism focuses on national consciousness, and it perpetually emphasises Hungarian pride, which is constructed by not only historical and sport successes but also governmental (https://jobbanteljesit.kormany.hu/). As a result, a new nationalist tendency has appeared among youngsters, which is based on the difference of value between the own group and the strange group. It is also visible that the own group is valued while the strange groups are devalued. This pride-related new nationalist tendency is measured by a questionnaire containing 21 items (Boros & Bozsó, 2018, p. 217). In this research, we highlighted three statements which focus on the attitude towards the own group and the strange (Figure 7).

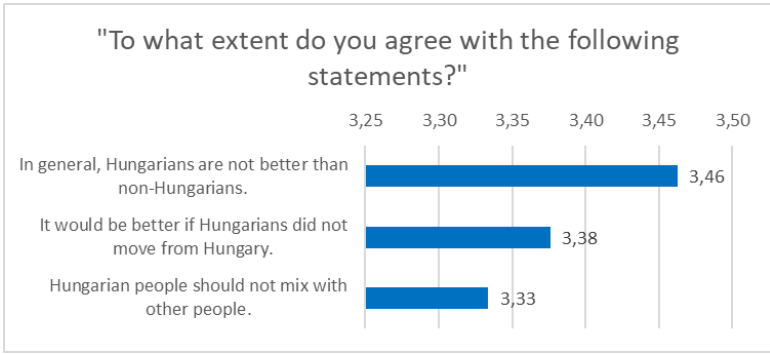

Figure 7. The difference of value between the own group and the strange group- the average of agreeing with the statements (N=1.931).

The listed statements were evaluated on a 5-point rating scale[32] by the participating youngsters. In the chart above, we can see antipathy towards strangers together with the xenophobe, exclusionary dimension of national identity. As for the statement saying that "In general, Hungarians are not better than non-Hungarians", which supposes the existence of value difference between in-group and out-groups, the value of the mode is five. It means that the determining majority of the participants selected the option of "I entirely agree." The degree of the agreement was slightly lower in the case of the second and third statements, which are firmly exclusionary (3.38 and 3.33 scale value). As for the middle statement, the value of the mode is three ("I partially agree and partially disagree"). It means that the statement referring to urging strangers to leave, participants opted for the middle item, which indicates uncertainty, balancing, and not revealing a determined viewpoint. The last examined statement can be regarded the most sensitive, here the mode is four, which means that the majority of youngsters selected the option of "I agree."[33]

3.6 Global thinking

By adopting a semantic differential scale (Table 5),[34] we got a clear picture of the peculiar features of Hungarian youngsters' global thinking, which issue was originally raised by the OECD. As previously, opting for the middle items is also conspicuous here: every forth youngster selected the item 4 (25%). 58% of the participants are in the middle of the semantic field (value of 3-4-5). 15% of the young think strictly from the nation's point of view; while global thinking,

[32] 1-5 point rating scale where 1= I totally disagree, 5= I entirely agree.
[33] 3= I partially agree and partially disagree.
[34] As for the operation of the scale, two bipolar adjectives indicate a semantic field and a seven-point rating Likert scale is integrated. The respondent has to place himself/herself in this field. The closer he/she puts the sign to the adjective, the stronger the attitude is.

which attitude bears in mind the fate of the whole mankind and world, is typical for one fifth of them (value of 6-7). During four years, the number of those youngsters who can exclusively think and reason from the nation's point of view has doubled: in 2012, merely 8% of them opted for the value of 1-2.

Table 5

Self-description by adopting feature-pairs: thinking from the nation's point of view- thinking from the mankind's point of view (N=7.186)

1	2	3	4	5	6	7
Nation						Mankind
7%	8%	17%	25%	16%	10%	8%

We attempt to explain the thinking pattern, the self-description with the help of a logistic regression model. Variables in the model are education,[35] place of living[36], subjective financial situation,[37] radical-moderate,[38] and political orientation[39] (Table 6). The model helps with examining whether the young tend to think from the nation's aspect or from the aspect of mankind, whether their thinking is determined by the variables appearing in the model, or whether there are other factors in the background. The binary variable[40] of the thinking pattern is a dependent variable, the explanatory power of the model can be considered as suitable.[41]

Table 6

The explanatory model of the thinking pattern

	B	S.E.	Wald	p	Exp(B)
Subjective financial situation	-0.96	0.183	27.558	0.000	0.383
Ideological orientation	-0.644	0.245	6.886	0.009	0.525

[35] 0=low level of education 1=secondary education 2=tertiary education.
[36] Settlement type of the living place: 1= capital, 2= county town, municipality 4=town 5=village.
[37] 1=good/average financial situation 0=poor financial situation (self-classification).
[38] moderate=0 radical=1 (self-classification).
[39] left-wing=0 right-wing=1 (self-classification).
[40] thinking from the nation's point of view=0 thinking from mankind's point of view=1 (dummy variable, self-classification).
[41] Hosmer and Lemeshow Test p=0.004, Chi-square=22.348, Nagelkerke R square=0.243, that is, the combination of the explanatory variables which explains 24% of the variance of the dependent variable

Radical moderate orientation	-1.015	0.216	22.019	0.000	0.362
Settlement type 4 categories			49.183	0.000	
Settlement type 4 categories (1)	1.438	0.293	24.147	0.000	4.212
Settlement type 4 categories (2)	-0.915	0.263	12.132	0.000	0.400
Settlement type 4 categories (3)	0.042	0.196	0.045	0.832	1.042
Highest qualification 3 categories	-0.043	0.135	0.101	0.750	0.958
Age group 3 categories	0.120	0.113	1.137	0.2860	1.128
Constant	2.527	0.449	31.673	0.0000	12.519

In the model, the explanatory power of the living place is highly visible[42]: in the settlements, villages of the countryside compared to the capital, there is a four times higher chance (4.212) to find youngsters who can exclusively think from the nation's aspect. As for smaller towns, the difference is also significant; however, county towns do not differ from the capital significantly. Education and age[43] do not influence way of thinking (whether it is from the nation's perspective or from mankind's). However, the impacts of subjective financial self-classification, ideological orientation and radical-moderate orientation are significant: if the other independent variables are under control and the financial situation is becoming better; on the ideological scale, there is a move to the right and a move to the moderate orientation from the radical, there is a higher chance to find a youngster who can exclusively think from the nation's point of view. Based on these results, we suppose that youngsters who can exclusively think from the nation's perspective live in the countryside; they are ideologically right-wing supporters and conservative members of the lower middle class.

Conclusions

To summarise, we can state that concerning the attitudes and values of youngsters aged 15-29, close-mindedness, moderate tolerance, low personal and institutional trust, keeping distance from public life, and a high degree of disinterest are typical. The young, as well as the whole society, typically claim for national isolation, and they are not really willing to collaborate with "the stranger," "the other."

[42] Village is the reference category; the others are compared to it.

[43] Usual classification of youngsters aged 15-29: people aged 15-19, people aged 20-24, people aged 25-29.

After the shock of 11/09, Elemér Hankiss outlined the peculiarities of closed societies. Can we recognise ourselves in the description? Opposed to open societies, closed societies are typically afraid of otherness, they are intolerant with otherness, other people, peoples, ideas, belief systems, other customs and civilisations (Hankiss, 2002, p. 144). It also seems that the scenario of "Harassed neighbourhoods" (in Hungarian: "Zaklatott szomszédságok") outlined by Hankiss may come true: strengthening tensions in the world, abundant unsolved problems, growing fight for diminishing natural resources (i.e. water), conflicts, civil wars, growing fear that can be experienced world-wide, increased xenophobia, intolerance.

Continental and regional units are formed; they become isolated and attempt to defend their interests (i.e. "Fortress Europe"). Inside the units, national states are getting stronger and they are willing to establish authoritarianism. In this world, power and security are the basic values, the target and meaning of life is defending Western civilisation against "barbarians", and frightening rumours become the most typical genre (Hankiss, 2002, p. 155-164).

It is possible for younger generations to discontinue the old-fashioned, negative mechanisms, and to construct an open society, which does not actually support the ideology of nationalism. We have to agree with Elemér Hankiss, if this situation were permanent, it would cause a tremendous disaster. If societies seclude themselves, if people's minds also seclude, we will have to be prepared for the "long winter of misery."

Acknowledgement

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Investigation of the Core Beliefs of the Teacher Candidates through Artificial Neural Networks

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Abstract:
Introduction: The research aims to investigate the relationship between pedagogical beliefs, epistemological beliefs of teacher candidates as well as their beliefs toward learning.
Methods: The study is a quantitative study based on a correlational survey model. Analysis of the data was done through artificial neural networks. The sample consists of fourth-grade students (teacher candidates) in social studies education in Süleyman Demirel University.
Results: In this study, it is found that beliefs toward learning are effective regarding pedagogical beliefs, epistemological beliefs.
Discussion: Hence, our finding is important in terms of implying that beliefs toward learning are more fundamental than the epistemological beliefs and pedagogical beliefs so that beliefs toward learning should be remedied to educate more qualified teachers.
Limitations: There were several limitations to this study. First, the very nature of identifying beliefs is difficult. The second limitation is that this research relied on only teachers' self-reported data. The third limitation is the population. Our population is small for making more general deductions regarding teacher candidates' core beliefs such as taking teacher candidates from different geographical areas of Turkey even from different cultures.
Conclusion: In this study, it is found that beliefs toward learning are effective regarding pedagogical beliefs, epistemological beliefs and pedagogical beliefs are effective about epistemological beliefs to the same extend. Hence, our finding is important in terms of implying that beliefs toward learning are more fundamental than the epistemological beliefs and pedagogical beliefs so that beliefs toward learning should be remedied to educate more qualified teachers.

Key words: pedagogical beliefs, epistemological beliefs, beliefs toward learning, artificial neural networks.

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Introduction

Epistemology is an area of philosophy concerned with the nature and justification of human knowledge (Hofer & Pintrich, 1997). In this regard, humans in one respect are epistemological machines because they are influenced by their belief systems when humans meet with new information or track the information in particular ways. Such convictions often influence many cognitive processes ranging from perception and conceptualization of the data to decision making processes to the views, thoughts, motivations, and actions of individuals. In this intersection between philosophy and psychology, Piaget (1950) employed the term genetic epistemology to describe his theorization of intellectual developments (Hofer & Pintrich, 1997). Piaget called this system as schemas as the building blocks of knowledge enabling us to form a mental representation through assimilation and accommodation processes (Piaget & Cook, 1952). Piaget (1950) used the term genetic epistemology to describe his theory of intellectual development, initiating the interest of developmental psychologists in this intersection of philosophy and psychology. In this context, individuals ' epistemic beliefs mainly involve elements that organize and play an active role in learning processes beliefs about nature, limits, content, source, precision and the knowledge process (Hofer, 2002). The first conceptualization of individual epistemology was made in 1970 by Perry during his study of the moral and intellectual development of Harvard students. In 1990 Schommer introduced a multidimensional perspective on epistemology.

In this article, epistemological beliefs (Figure 1) are classified in terms of the scale developed by Schraw, Bendixen and Dunkle (2002). According to this scale, there are five dimensions of epistemological beliefs given as the source of knowledge, stability of knowledge, structure of knowledge, control, and speed of knowledge acquisition. The dimension “structure of knowledge” aspect represents a continuum from a simplistic perspective that knowledge is organized simply and consisting of independent components to a dynamic, interrelated position of knowledge. The "stability of knowledge" requires a complete and stable understanding status over time to a role in which information undergoes a constant cycle of growth. The “source of knowledge,” dimension indicates a position that implies a place whereby knowledge is omniscient, to a position that knowledge can be gained through personal experiences. The “control of learning processes,” describes a range from the position that the learning capacity is determined when it is born to the view that learning ability is acquired through experience. The dimension, “speed of knowledge acquisition” extends from the view that learning is a process that succeeds on an ad-hoc basis or not at all to the view that learning is a step-by-step process (Paechter et al., 2013).

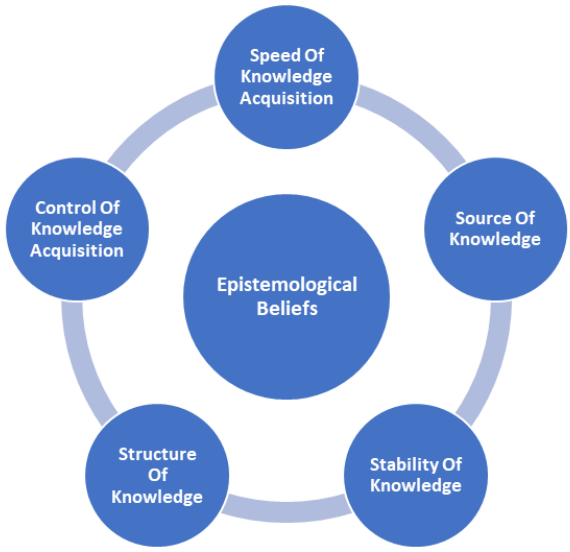

Figure 1. Epistemological beliefs according to Schraw, Bendixen and Dunkle (2002).

The teachers' initial ideas or beliefs about learning-teaching are the most central instrument of teacher education because the indicators of teacher candidates' ability to adapt to more contemporary or learner-centered, learning-teaching approaches are embedded in their pedagogical belief systems. Teacher education can be improved and reformed through since that the systematic description of teacher trainees' pedagogical belief systems could provide significant information about the orientations of teacher educators' pedagogical belief systems. Teachers' ideas or beliefs about learning-teaching can be classified in many ways. According to Soysal, Radmard, Kutluca (2018), it can be classified in terms of three dimensions as "structuring knowledge according to individual differences", "traditional structuring of social and epistemic authority in-class" and finally "diffusion of knowledge from more to lesser ones". These are conceptualized as learner-centered beliefs and teacher-centered beliefs given in Figure 2.

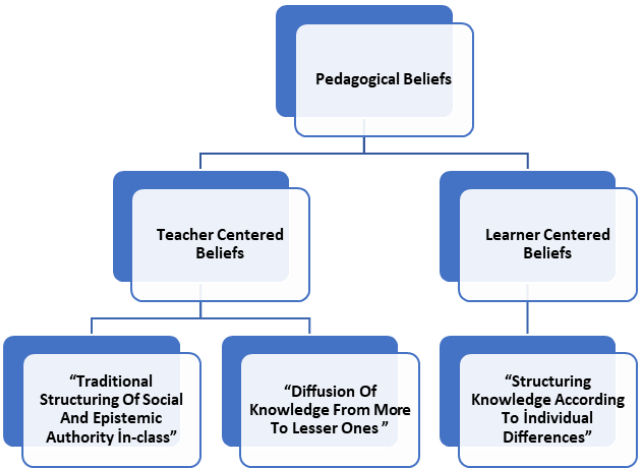

Figure 2. Pedagogical beliefs according to Soysal, Radmard, and Kutluca (2018).

Beliefs toward learning (Figure 3) is also an important concept for the understanding of teachers' pedagogical stance because beliefs toward learning have an impact on the thinking of teachers as to how learning occurs, affect their views on the teacher and student roles in the process and play a decisive role in their classroom practices. According to Bay et al. (2012), beliefs toward learning can be classified as "Traditional", "Social constructivism", "Cognitive Constructivism" and "Radical constructivism." In the traditional approach, the student is perceived as an individual having a passive role based on taking information; the teacher has an active role in information-transferring and decision-making processes. The principle of cognitive constructivism is that knowledge does not form an entire body of facts that can be transferred outside the individual and that it is created by internalizing by the individual. The starting point of cognitive constructivism is the individual's experiences and the perceptions of the subject and their mental constructs. According to the social constructivist approach, knowledge is constructed based on cultural and historical sources, radical constructivism emphasized that each individual comes to the learning and teaching process with different experiences. Knowledge reflects a world created, organized and organized by the individual's own experiences (Bay et al., 2012).

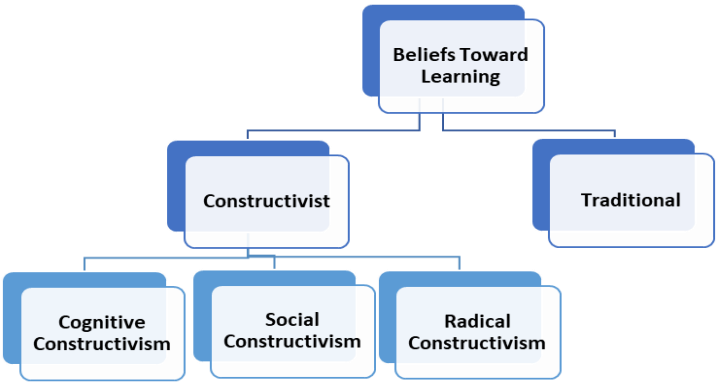

Figure 3. Beliefs toward learning according to Bay et al. (2012).

When epistemological beliefs, pedagogical beliefs, beliefs toward learning are investigated conceptually, it can be seen that epistemological beliefs can be regarded as the base of pedagogical beliefs because they are more abstract than pedagogical beliefs. Similarly, pedagogical beliefs can be regarded as the base of beliefs toward learning since they are more generalized than beliefs toward learning. Therefore, in this study, it is aimed to investigate how the hierarchy is structured and how they are related in this regard. Therefore, the following questions were sought in this regard:

1. What is the relationship between epistemological beliefs, pedagogical beliefs?
2. What is the relationship between pedagogical beliefs, beliefs toward learning?
3. What is the relationship between epistemological beliefs, beliefs toward learning?

These questions were investigated in this study to determine the core beliefs of teacher candidates because core beliefs about knowing are central associated with most other values, whereas peripheral beliefs about learning and teaching are extracted from these core beliefs and are more readily expressed and changed (Brownlee, Boulton-Lewis, & Purdie, 2002). In this respect, it is important to determine the degree of the centrality of the beliefs for achieving more qualified teacher education.

1 Methods

The study is a quantitative study based on a correlational survey model. The Multilayer Perceptron Network (MLP) which is an artificial neural network in SPSS was used in the analysis of the data.

1.1 The sample

However, WE differs from ELF as WE emphasizes the codification of national varieties which is mainly in the Outer circle of Kachru's (1986, 1992) model whereas, ELF emphasizes the uses of English in all the three circles: Inner, Outer, and Expanding with the Expanding Circle being its special interest. Nonetheless, as ELF is abo The sample of the study consists of 154 teacher candidates in the social science teaching department at Süleyman Demirel University. The sample was selected in terms of the convenience sampling technique. Convenience sampling is a specific type of sampling method that relies on data collection from population members who are conveniently available to participate in the study in terms of time and cost, the sample group was chosen as the most available group of individuals in the 4'th grade students (teacher candidates) in social studies education in Süleyman Demirel University. Additionally, to determine the size of the sample, the formula of Yamane (2010) was used as follows:

$$n = \frac{Nz^2pq}{(N-1)d^2+z^2pq} = \frac{312(1.96)^2 0.5.0.5}{(311)(0.07)^2+(1.96)^2(0.5)(0.5)} = \frac{299.645}{2,4843} = 120,62$$

Where N= the number of individuals in the population as 312 individuals;
z = 1.96 (standard normal distribution table value for the desired reliability level (95%);
d = 0.07 (sensitivity);
p: the ratio of individuals with the desired feature in the stack (p + q = 1, p = q = 0.50 to make the maximum sample diameter).
As a result of the procedure, it is assumed that the sample of 121 students can represent the population (http://egitim.sdu.edu.tr/tr/ogrenci-sayilari/ogrenci-sayilari-9375s.html) and this value is accepted as the lower limit for the sample size. Therefore, because our sample consisting of 154 teacher candidates, it is appropriate representing the population.
Additionally, for correlational survey models, the number of sample size is taken into consideration as a result of the calculation made with the following formula (Tabachnick & Fidell, 2007):
N> 50 + 8m;
N: Number of participants m: number of independent variables where m= 11 (4 independent variables from beliefs toward learning, 3 from pedagogical beliefs and 5 from epistemological beliefs);
N> 146 where the target sample size for this study is 154 which meets the requirement.

1.2 Research tools

The research tools used in this study are Pedagogical Belief Systems Scale, Epistemic Beliefs Inventory, and Belief scale towards learning. These scales are briefly explained below.

1.2.1 Pedagogical Belief Systems Scale

The Pedagogical Belief Systems Scale was adopted into Turkish by Soysal, Radmard, and Kutluca (2018) that is conducted to 689 prospective teachers (PTS) in diverse teaching programs. The Cronbach alpha internal consistency coefficient of the pedagogical belief systems scale was found to be 0.77. As a result of confirmatory factor analysis, the chi-square value of the model (2 = 155.78; N = 689; sd = 296; p = 0.00) was found to be significant. Therefore, it can be said that this scale is reliable and valid for scientific researches.

1.2.2 Epistemic Beliefs Inventory

The Epistemic Beliefs Inventory which was originally developed by Schraw, Bendixen, and Dunkle in 2002 and was adopted into Turkish by Velipaşaoğlu (2011) to explore the beliefs of students of Dokuz Eylül Medical School towards knowledge. The scale which has 19 questions under five dimensions and is a valid and reliable tool. The total score of the scale ranged from 32 to 160; low scores were interpreted as a subjectivist tendency and high scores were interpreted as an objectivist tendency. It was found that the Cronbach Alpha value was 0.775 and the standardized item alpha value was 0.760, which showed that the scale had an acceptable internal consistency, in other words, it was reliable (Velipaşaoğlu, 2011).

1.2.3 Belief scale towards learning

The belief scale towards learning was developed by Bay et al. (2012). It was conducted to 233 teachers who worked in a primary school in the city center of Gaziantep during the first semester of the academic year 2011-2012. The content validity of the scale was provided via expert judgment. The Cronbach Alpha internal consistency coefficient and the split-half method were examined. As a result of the reliability analysis, the internal coefficient was determined as .86 for the "Traditional Constructivist" subscale, .85 for the "Social constructivist" subscale, .74 for the "Cognitive constructivist" subscale and .73 for the "Radical constructivist" subscale. The reliability coefficients for the subscales assessed by the way of the split-half method were .77 for social constructivist subscale, .84 for traditional subscale, .66 for cognitive constructivist subscale, and .67 for radical constructivist subscale. These results indicated the Belief Scale towards Learning is at the level of sufficient reliability.

1.3 Data analysis

The first Artificial Neural Network design was developed in 1943 by McCulloch and Pitts, influenced by the human brain's programming capabilities, and designed a functional neural network with an electronic circuit. Hebb in 1949 attempted to show how the human brain neurons were taught. Developments in the field of artificial neural networks accelerated in 1957 after Frank Rosentblatt realized Perceptron (Çırak, 2012). The mechanisms of neurons in the brain

shortly encourage artificial neural networks to provide capabilities such as reading, recalling, and processes information processing (Taşgetiren, 2006). The advantages of artificial neural networks are that they do not require any presuppositions and can run the system by limiting them to the data at hand (Başman, 2014). Neural Networks developed for this purpose generally perform the following functions (Öztemel, 2003):

- Estimation: Artificial neural networks used for this purpose estimate the corresponding output values using the information presented to the network.
- Classification: Artificial neural networks used for this purpose assume the task of categorizing the information given to them.
- Data association: Networks trained for this purpose determine whether the data presented to the network is incorrect.
- Data filtering: Networks trained for this purpose perform the task of identifying appropriate data from among many data.
- Recognition and matching: Recognition of different shapes and patterns can perform matching and recognition functions by processing incomplete, complex, ambiguous information.
- Diagnosis: Networks developed for this purpose carry out the process of identifying the problems of the systems and identifying the problems.
- Interpretation: Interpretation of new events using information obtained from the samples collected about an event and generated as a result of training is considered within this scope.

Multilayered Perceptron-MLP (Figure 4) was used for the analysis of the data in this regard since it can produce solutions to nonlinear problems compared to single-layer artificial neural network models such as Hebb Net, Perceptron and Adaline. A multilayer perseptron uses a learning rule called the Generalized Delta Rule, which is the generalized form of the Delta Rule, which is based on the least-squares method. Multilayer Perceptron Network (MLP) consists of three parts: the input layers as neurons which represent the available data in this case the multispectral image band values, the hidden layer which demonstrates the network training process and finally the output layer which will be the bathymetric information. A hypothetical example of (MLP) ANNs with 4 input layers, 5 hidden layers and one output layer (4-5-1) is demonstrated in Figure below (Mohamed et al., 2015).

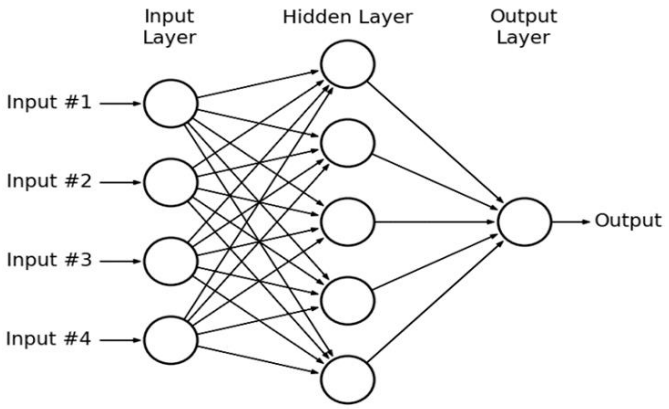

Figure 4. A hypothetical example of the Multilayer Perceptron Network (Mohamed et al., 2015).

When the normalized importance of epistemological beliefs, pedagogical beliefs, beliefs toward learning are investigated to determine which one can be classified as a core belief than other, the formula developed by researches given as below was used:

$$\mathrm{p} = \frac{\sum_{i=1}^{n} t_i}{n\ 100} \times 100$$

where p stands for strength of the significance level, t is the point for the dimension of significance level for each model for the others and n the number of dimensions for each model.

2 Findings

2.1 Findings regarding the relationship between epistemological beliefs and pedagogical beliefs

Model summary regarding the relationship between epistemological beliefs and pedagogical beliefs can be given as in Table 1 below.

Table 1

Model summary regarding the relationship between epistemological beliefs and pedagogical beliefs

	Model Summary		
Training	Sum of Squares Error		135.770
	Average Overall Relative Error		.870
	Relative Error for Scale	pisfactor1	.882
	Dependents	pisfactor2	.826

		pisfactor3	.903
	Stopping Rule Used		1 cons1qecutive step(s) with no decrease in error[a]
	Training Time		0:00:00,05
Testing	Sum of Squares Error		54.594
	Average Overall Relative Error		.902
	Relative Error for Scale	pisfactor1	.855
	Dependents	pisfactor2	.867
		pisfactor3	.959

a. Error computations are based on the testing sample.

Model summary regarding the relationship between epistemological beliefs and pedagogical beliefs are given in Figure 5 below.

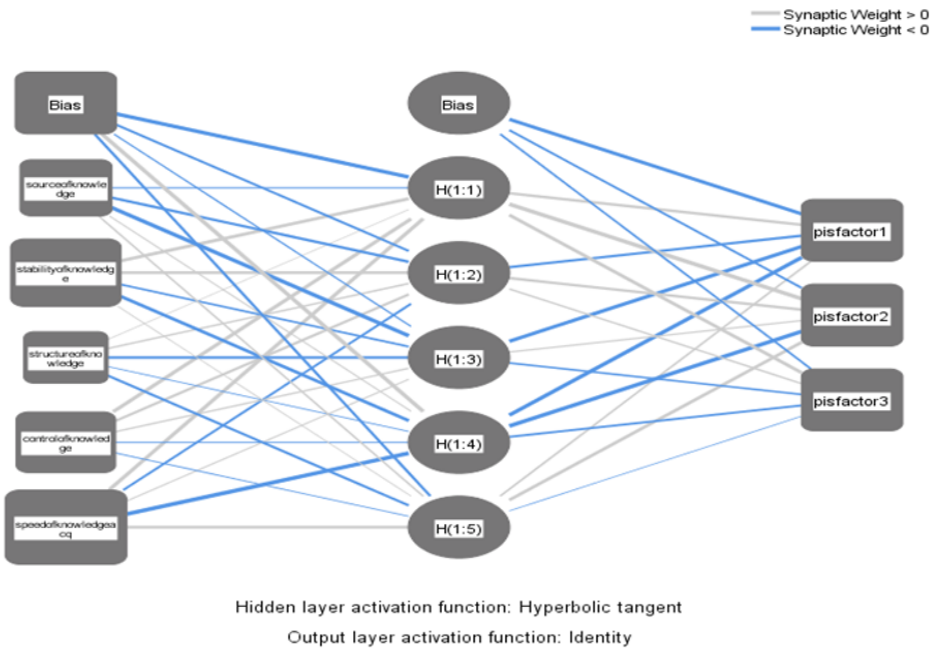

Figure 5. Model summary regarding the relationship between epistemological beliefs and pedagogical beliefs.

When the normalized importance was investigated, it was seen that the speed of knowledge acquisition is the most important factor for this model. Secondly, the stability of knowledge; thirdly, control of the knowledge; fourthly, the source of the knowledge; and fifthly, the structure of knowledge are arranged as important factors (Figure 6).

Independent Variable Importance

	Importance	Normalized Importance
sourceofknowledge	,107	26,9%
stabilityofknowledge	,287	72,4%
structureofknowledge	,031	7,8%
controlofknowledge	,179	45,0%
speedofknowledgeacq	,396	100,0%

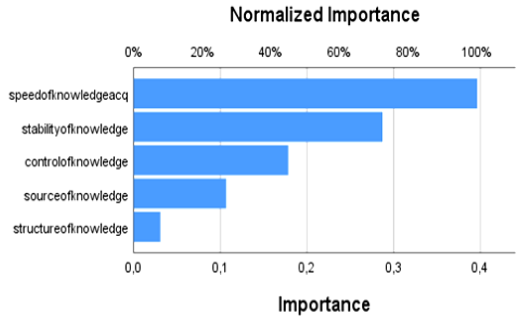

Figure 6. Normalized importance of epistemological beliefs for the model of pedagogical beliefs.

When the reverse model was investigated, the model summary was found to be as in Table 2.

Table 2

Reverse model summary of epistemological beliefs and pedagogical beliefs

	Model Summary		
Training	Sum of Squares Error		255.323
	Average Overall Relative Error		.928
	Relative Error for Scale Dependents	Source of knowledge	.958
		Stability of knowledge	.961
		Structure of knowledge	.952
		Control of knowledge	.920
		Speed of knowledge acquisition	.852
	Stopping Rule Used	1 consecutive step(s) with no decrease in error[a]	
	Training Time		0:00:00,13
Testing	Sum of Squares Error		106.205
	Average Overall Relative Error		.921
	Relative Error for Scale Dependents	Source of knowledge	1.000
		Stability of knowledge	.867
		Structure of knowledge	.964
		Control of knowledge	.910
		Speed of knowledge	.872

	acquisition

a. Error computations are based on the testing sample.

As it can be seen the importance levels reverse model of epistemological beliefs and pedagogical beliefs are different in terms of direction and variable than the normal model.

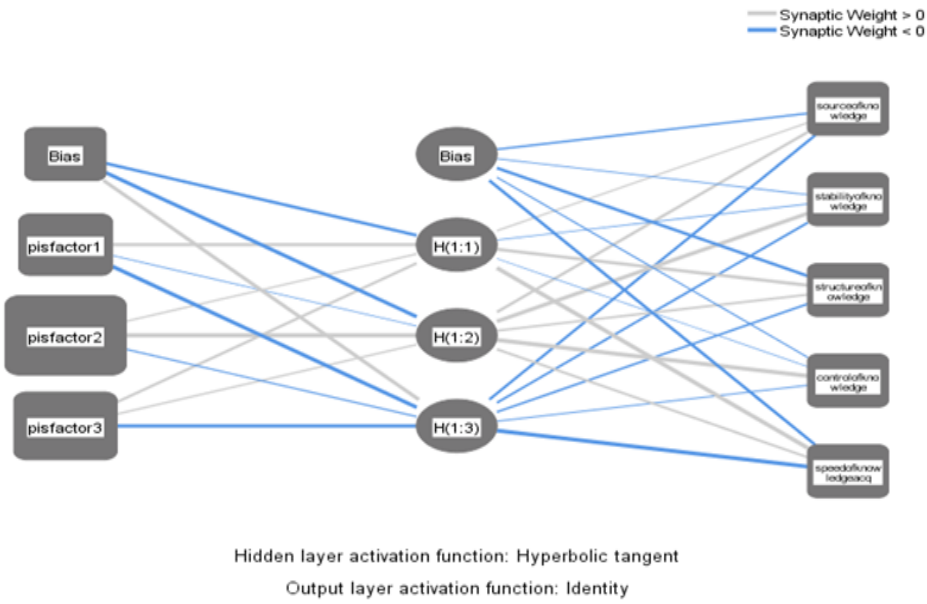

Figure 7. Reverse model of epistemological beliefs and pedagogical beliefs.

When the reverse model analyzed (Figure 7) it was seen that factor 2 belonging to learner-centered beliefs given as "structuring of social and epistemic authority in-class" is the first important factor and second important factor is found to belong to teacher-centered beliefs given as "diffusion of knowledge from more to lesser ones", the third important factor is found to be "structuring knowledge according to individual differences" given as teacher-centered beliefs (Figure 8).

Independent Variable Importance

	Importance	Normalized Importance
pisfactor1	,270	65,8%
pisfactor2	,411	100,0%
pisfactor3	,319	77,7%

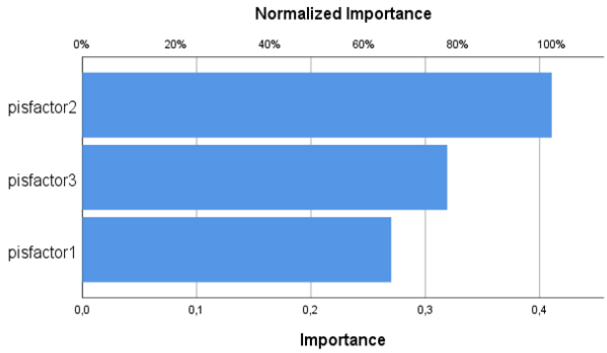

Figure 8. Importance levels for the reverse model of epistemological beliefs and pedagogical beliefs.

2.2 Findings on the relationship between pedagogical beliefs and beliefs toward learning

Model summary regarding the relationship between pedagogical beliefs, beliefs toward learning given as in Table 3 below.

Table 3

Model summary regarding the relationship between pedagogical beliefs and beliefs toward learning

Model Summary			
Training	Sum of Squares Error		193.082
	Average Overall Relative Error		.847
	Relative Error for Scale Dependents	Social structuralism	.893
		Traditional	.862
		Cognitive structuralism	.832
		Radical struturalism	.801
	Stopping Rule Used	1 consecutive step(s) with no decrease in error[a]	
	Training Time		0:00:00,09
Testing	Sum of Squares Error		62.832
	Average Overall Relative Error		.843
	Relative Error for Scale Dependents	Social structuralism	.792
		Traditional	.878
		Cognitive structuralism	.816
		Radical structuralism	.887

a. Error computations are based on the testing sample.

Model summary regarding the relationship between pedagogical beliefs and beliefs toward learning is given in Figure 9 below.

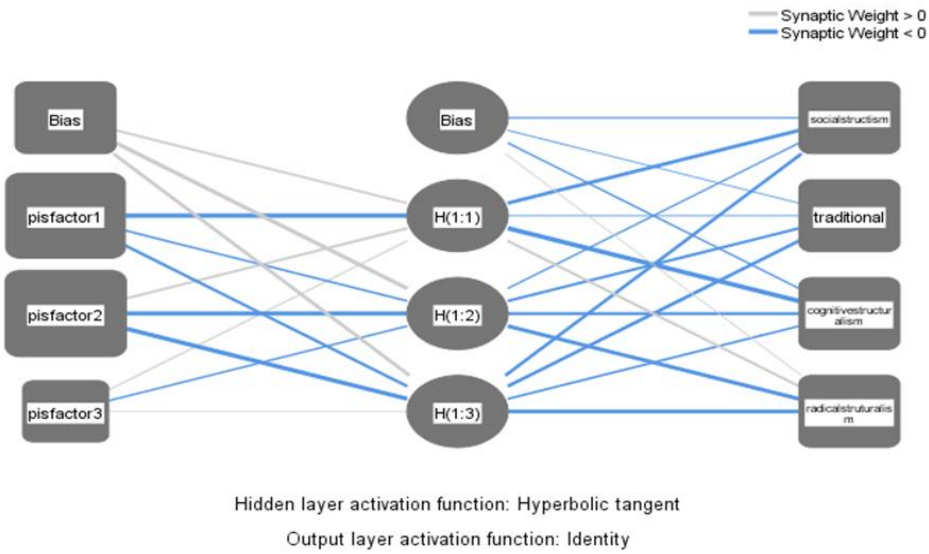

Figure 9. Model summary regarding the relationship between pedagogical beliefs and beliefs toward learning.

When the normalized importance was investigated, it was seen that factor 2 belonging to teacher-centered beliefs given as traditional structuring of social and epistemic authority in-class is the first important factor and the second important factor is found to belong to learner-centered beliefs given as "structuring knowledge according to individual differences." (Figure 10)

Independent Variable Importance

	Importance	Normalized Importance
pisfactor1	,459	95,8%
pisfactor2	,480	100,0%
pisfactor3	,061	12,7%

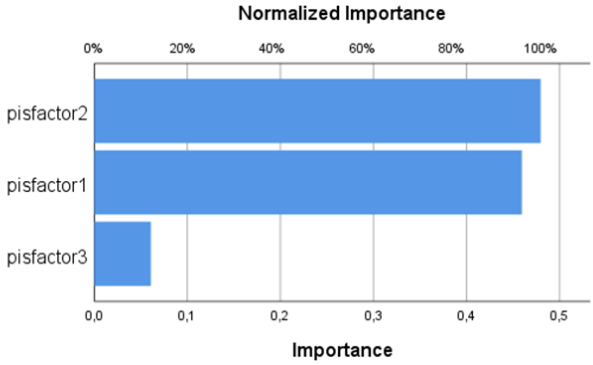

Figure 10. Normalized importance of pedagogical beliefs for the model of beliefs toward learning.

When the reverse model was investigated given as in Figure below, the model summary was found to be Table 4.

Table 4

Reverse model summary of pedagogical beliefs for the model of beliefs toward learning

	Model Summary		
Training	Sum of Squares Error		131.850
	Average Overall Relative Error		.799
	Relative Error for Scale	Pisfactor1	.797
	Dependents	Pisfactor2	.704
		Pisfactor3	.897
	Stopping Rule Used		1 consecutive step(s) with no decrease in error[a]
	Training Time		0:00:00,12
Testing	Sum of Squares Error		51.626
	Average Overall Relative Error		.810
	Relative Error for Scale	Pisfactor1	.759
	Dependents	Pisfactor2	.855
		Pisfactor3	.825

a. Error computations are based on the testing sample.

As can be seen, the importance levels reverse model of pedagogical beliefs for the beliefs toward learning are different in terms of direction and variable than the normal model.

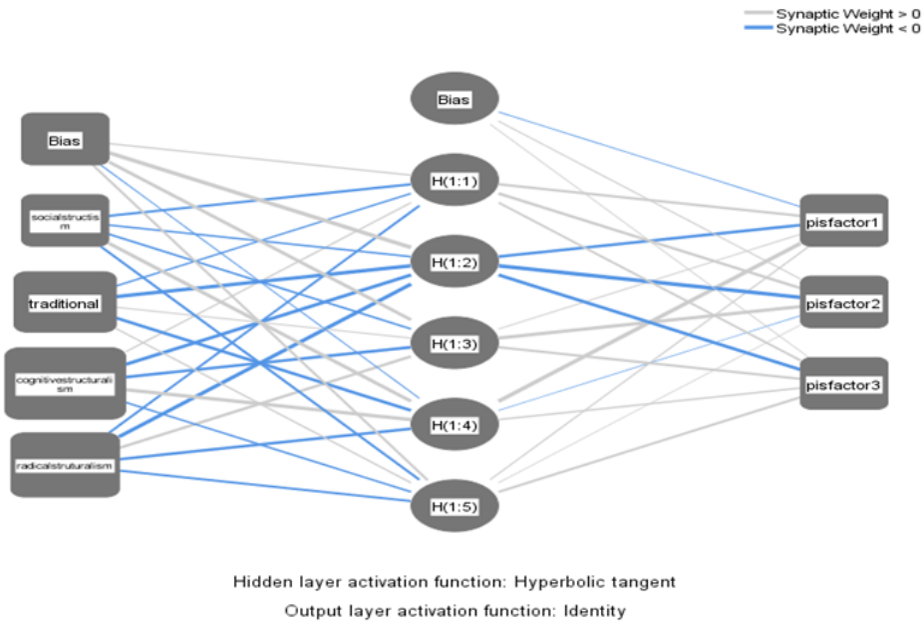

Figure 11. Reverse model of pedagogical beliefs for the model of beliefs toward learning.

When the model analyzed (Figure 11) the first important factor for this model is cognitive structuralism, the second important factor is radical structuralism and the third important factor is the traditional view and finally, the least important factor is social structuralism (Figure 12).

Independent Variable Importance

	Importance	Normalized Importance
socialstructism	,164	49,8%
traditional	,237	72,1%
cognitivestructuralism	,330	100,0%
radicalstruturalism	,269	81,6%

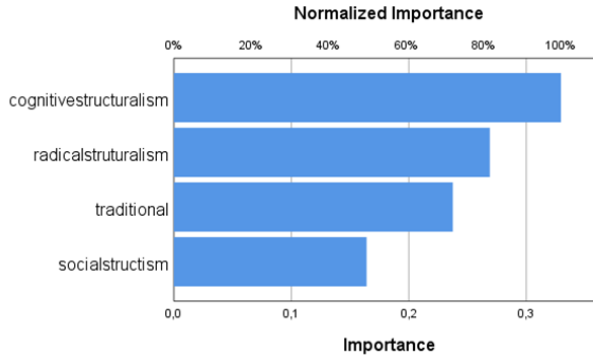

Figure 12. Importance levels for the reverse model of pedagogical beliefs for the model of beliefs toward learning.

2.3 Findings regarding the relationship between epistemological beliefs and beliefs toward learning

Model summary regarding the relationship between epistemological beliefs and beliefs toward learning can be given as in Table 5 below.

Table 5

Model summary regarding the relationship between epistemological beliefs and beliefs toward learning

	Model Summary		
Training	Sum of Squares Error		128.201
	Average Overall Relative Error		.557
	Relative Error for Scale Dependents	Social structuralism	.473
		Traditional	.733
		Cognitive structuralism	.578
		Radical structuralism	.446
	Stopping Rule Used		1 consecutive step(s) with no decrease in error[a]
	Training Time		0:00:00,15
Testing	Sum of Squares Error		50.607
	Average Overall Relative Error		.504
	Relative Error for Scale Dependents	Social structuralism	.355
		Traditional	.489
		Cognitive structuralism	.665
		Radical structuralism	.453

a. Error computations are based on the testing sample.

Model summary regarding the relationship between epistemological beliefs, beliefs toward learning given in Figure 13.

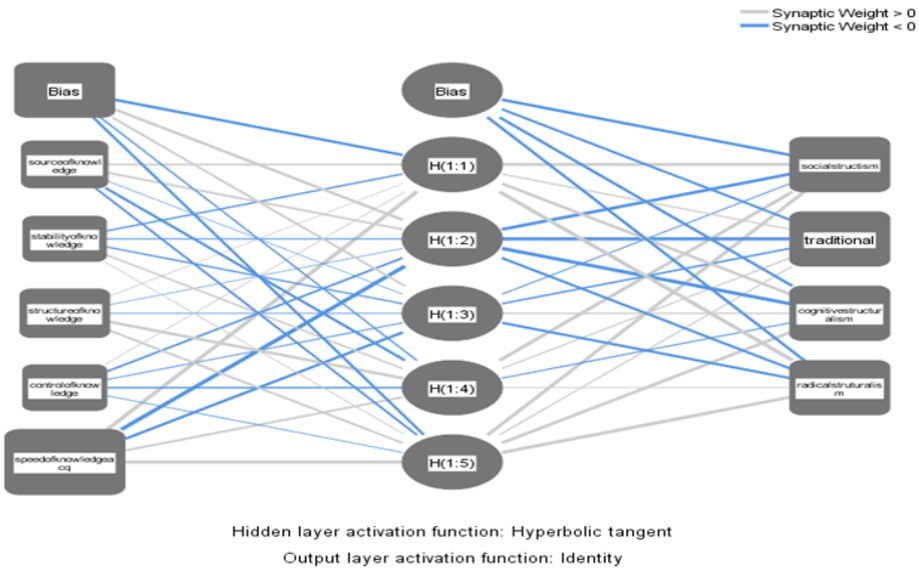

Figure 13. Model summary regarding the epistemological beliefs and beliefs toward learning.

When the normalized importance was investigated, it was seen that the speed of knowledge acquisition is the most important factor for the model so that other dimensions can be disregarded because they have so small importance levels (Figure 14).

Independent Variable Importance

	Importance	Normalized Importance
sourceofknowledge	,097	15,1%
stabilityofknowledge	,047	7,4%
structureofknowledge	,149	23,2%
controlofknowledge	,063	9,8%
speedofknowledgeacq	,643	100,0%

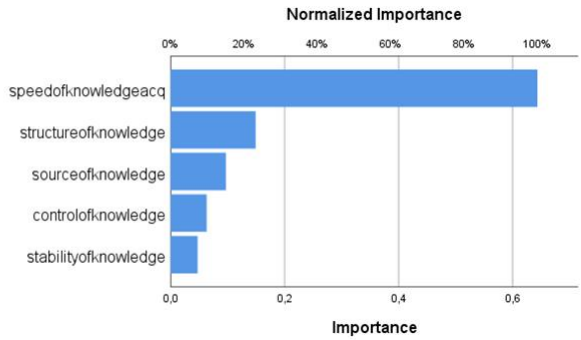

Figure 14. Normalized importance of the epistemological beliefs and beliefs toward learning.

When the reverse model was investigated given as in Figure below, the model summary was found to be as in Table 6.

Table 6

The model summary of the reverse model for epistemological beliefs

	Model Summary		
Training	Sum of Squares Error		216.655
	Average Overall Relative Error		.781
	Relative Error for Scale Dependents	Source of knowledge	.910
		Stability of knowledge	.933
		Structure of knowledge	.868
		Control of knowledge	.943
		Speed of knowledge acquisition	.249
	Stopping Rule Used		1 consecutive step(s) with no decrease in error[a]
	Training Time		0:00:00,10
Testing	Sum of Squares Error		77.272
	Average Overall Relative Error		.796
	Relative Error for Scale Dependents	Source of knowledge	1.007
		Stability of knowledge	.860
		Structure of knowledge	.865
		Control of knowledge	.906
		Speed of knowledge acquisition	.246

a. Error computations are based on the testing sample.

As can be seen, the importance levels reverse model of the epistemological beliefs for the beliefs toward learning are different in terms of direction and variable than the normal model.

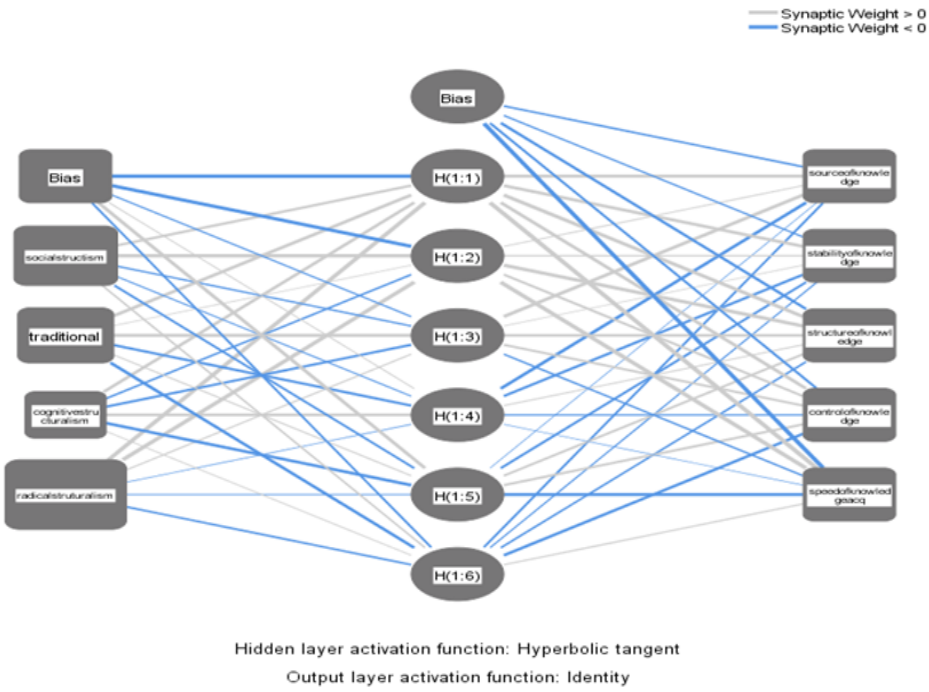

Figure 15. Reverse Model summary regarding the epistemological beliefs and beliefs toward learning.

When the reverse model was analyzed (Figure 15), the first important factor or this model was found to be radical structuralism, the second important factor was found to be social structuralism and the third important factor was the traditional view and finally, the least important factor was found to be cognitive structuralism (Figure 16).

Independent Variable Importance

	Importance	Normalized Importance
socialstructism	,271	69,2%
traditional	,219	56,0%
cognitivestructuralism	,118	30,2%
radicalstruturalism	,392	100,0%

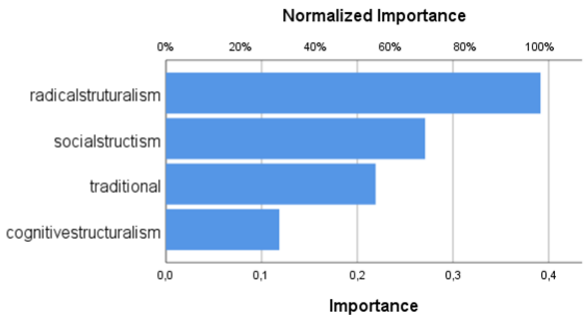

Figure 16. Normalized importance of epistemological beliefs and beliefs toward learning.

3 Discussion

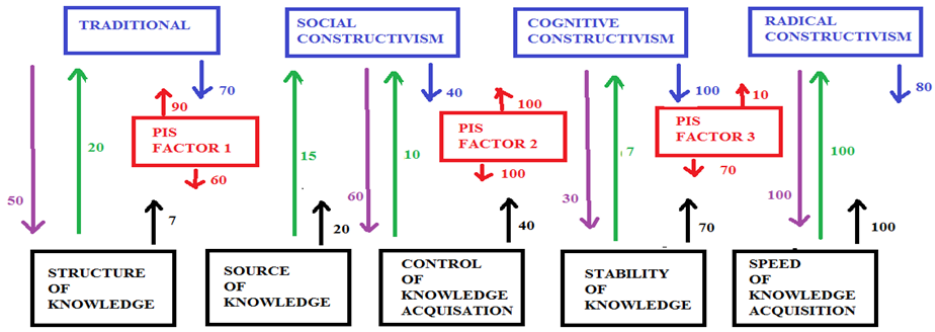

Figure 17. The relationship among the normalized importance of epistemological beliefs, pedagogical beliefs, and beliefs toward learning.

When the normalized importance of epistemological beliefs, pedagogical beliefs, beliefs toward learning are investigated (Figure 17) it seems that pedagogical beliefs have the most significant levels both for epistemological beliefs, beliefs toward learning. Let's investigate which one has the most significant values for the given model by the formula given as below (Figure 18)

$$\mathrm{p} = \frac{\sum_{i=1}^{n} t_i}{n\ 100} \times 100$$

where p stands for strength of the significance level, t is the point for the dimension of significance level for each model and n the number of dimensions for each model. For instance, n = 3 for pedagogical beliefs and $t_1 = 60, t_2 = 100, t_3 = 70$ for the importance levels of epistemological beliefs, so the strength of the significance level for epistemological beliefs is 76.6%. Similarly, 66.6% is for beliefs toward learning.

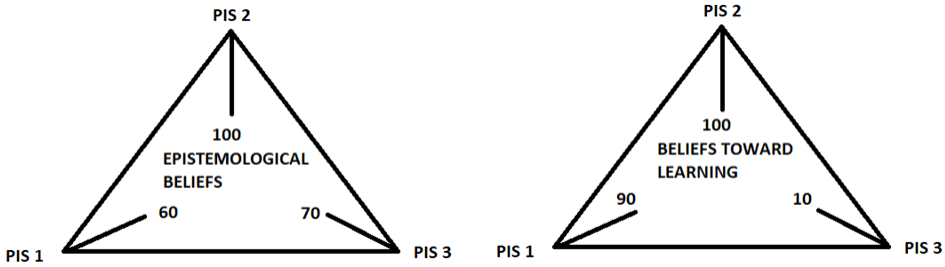

Figure 18. The importance levels of pedagogical beliefs.

As for the importance levels of beliefs toward learning (Figure 19), a 72.5% significance level is found to be for pedagogical beliefs and a 60% significance level is found to be for epistemological beliefs.

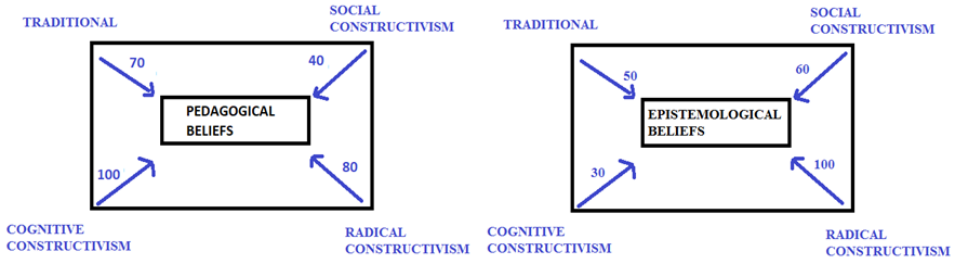

Figure 19. The importance levels of beliefs toward learning.

As for the importance levels of epistemological beliefs (Figure 20), a 46% significance level is found to be for pedagogical beliefs and a 27% significance level is found to be for beliefs toward learning.

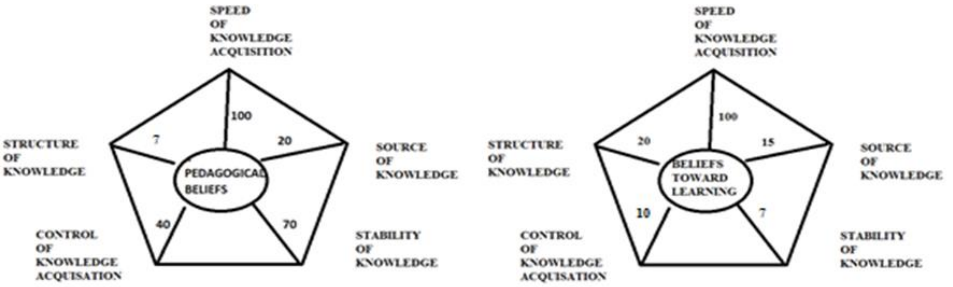

Figure 20. The importance levels of epistemological beliefs.

When the table was investigated, it can be inferred that pedagogical beliefs explain 76.6% of epistemological beliefs while epistemological beliefs explain pedagogical beliefs at the rate of 47% so that pedagogical beliefs are thought to be more fundamental than epistemological beliefs. Similarly, it can be inferred that beliefs toward learning explain 60% of epistemological beliefs while epistemological beliefs explain beliefs toward learning at the rate of 30% so that beliefs toward learning are thought to be more fundamental than epistemological beliefs. Furthermore, it can be inferred that beliefs toward learning explain 72.5% of pedagogical beliefs while pedagogical beliefs explain beliefs toward learning at the rate of 66.6 % so that beliefs toward learning are thought to be more fundamental than pedagogical beliefs (Table 7).

Table 7

The importance levels of pedagogical beliefs, epistemological beliefs, and beliefs toward learning

	Epistemological beliefs	*Pedagogical beliefs*	*Beliefs toward learning*
Epistemological beliefs	X	47%	30%
Pedagogical beliefs	76.6%	X	66.6%
Beliefs toward learning	60%	72.5%	X

Therefore, it can be assumed that there is an order given as below among the variables as pedagogical beliefs, epistemological beliefs, beliefs toward learning (Figure 21).

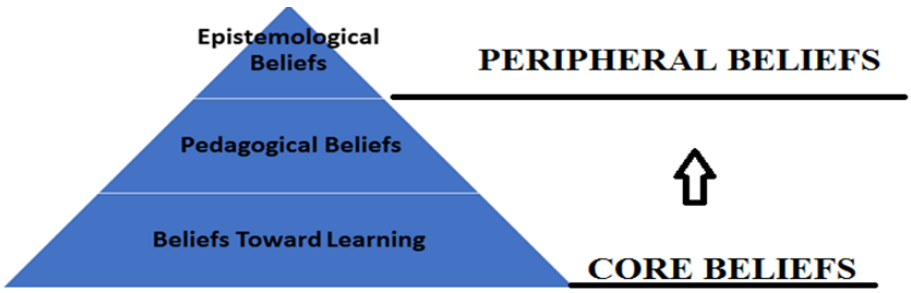

Figure 21. The hierarchy among pedagogical beliefs, epistemological beliefs, beliefs toward learning.

In this study, it is found that beliefs toward learning are effective regarding pedagogical beliefs, epistemological beliefs. Pedagogical beliefs are effective about epistemological beliefs to the same extend. When the literature is examined, it can be seen that beliefs toward learning might affect teachers' thoughts about how learning can happen, and influence teacher and student roles in their vision (Luft & Roehrig, 2007; Richardson, 1996; Shin & Koh, 2007; Woolley, Benjamin & Woolley, 2004). This study suggested that teachers' beliefs toward learning are at the core of their pedagogical and epistemological beliefs. Luft and Roehrig (2007) indicate that core beliefs are often more related and consistent within a framework, whereas peripheral beliefs are not so closely linked to other systems beliefs and may clash. Besides, more central and connected beliefs can be more resistant to change (Kagan, 1992). Therefore, it can be argued that epistemological beliefs can be regarded as more context-specific whereas beliefs toward learning are more generalizable. This can be result from the fact that individuals own profession is more effective than the more abstract beliefs such as epistemological beliefs because people mostly

think from concrete to abstract, from close to far and from simple to complex so that it is much easier to think in terms of the beliefs that are more related with their profession than the others. This variability is often associated with the core and peripheral nature of beliefs and affects one's cognitive schema in different ways (Brownlee, Boulton-Lewis, & Purdie, 2002; Luft & Roehrig, 2007; Rokeach, 1986). For example, Rokeach (1986) identified five types of beliefs existing along a continuum from the core to more peripheral in nature classified as A, B, C, D, and E where type A and B beliefs are more central, whereas Type E beliefs are peripheral. In this classification, type A beliefs concern those that are fundamental to their psychological existence whereas Type E beliefs are related to an individual's taste (Brownlee, Boulton-Lewis, & Purdie, 2002). Hence, our finding is important in terms of implying that beliefs toward learning are more fundamental than the epistemological beliefs and pedagogical beliefs so that beliefs toward learning should be remedied to educate more qualified teachers.

4 Limitations

There were several limitations to this study. First, the very nature of identifying beliefs is difficult. For instance, just like many other scholars, Schommer (1993) suggested that people can have individual convictions that have various effects on behavior or cognitive processes. The second limitation is that this research relied on only teachers' self-reported data. It may be more convenient to use a variety of measurement tools, such as direct observation and interviewing participants. The third limitation is the population. Our population is small for making more general deductions regarding teacher candidates' core beliefs such as taking teacher candidates from different geographical areas of Turkey even from different cultures.

Conclusions

In this study, it is found that beliefs toward learning are effective regarding pedagogical beliefs, epistemological beliefs through neural network analysis. It is also found that pedagogical beliefs are effective about epistemological beliefs to same extend by neural network analysis. Therefore, it is suggested that neural networks can be used to analyze also qualitative data for subsequent researches. They can be used to analyze different scales in different populations through different research designs. As for the recommendations on the findings of this research, teacher education programs aiming at remedying or changing the teacher candidates' beliefs toward learning can be improved in this regard. This finding is important for improving teacher competencies since we can identify competencies or expertise as being capable of achieving desirable outcomes to prevent undesirable consequences (Čerešník, 2011). Competencies are always goal directed and they are related to beliefs toward learning in this respect. It

should be noted that, this is not only the greatest approach to transmit ideals, beliefs and values as well as to shape the personality but also to create a constructive and universal sense of need, in which this feeling of need indicates that growth is distinct from that of the target, and pedagogical difficulties overcome the gap (Turós, 2019). Hence, more qualified teachers should only be brought up based on education enabling them to have coherent and reasonable pedagogical beliefs toward learning.

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Teachers' Views about the Characteristics of Pedagogical Talents

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Abstract:
Introduction: This paper presents the results of a survey on excellent teachers conducted in Hungary in 2018. The main question of the study was how pedagogical talents can be characterised by competences and personality traits according to effective teachers and their colleagues. Furthermore, what effective teachers think about their own competences and characteristics, as well as how that is related to their beliefs of pedagogical talents was tested.
Methods: The online questionnaire method was applied in the research. The sample involved effective teachers (N=92) of high-risk students (N=25) and of gifted students (N=43), as well as supervisor teachers (N=24) who were selected by judgment sampling. The control group of teachers (N=76) had similar characteristics to the sample as they were matched by the type of institution and geographical location. The data was processed using SPSS software.
Results: The excellent teachers' beliefs about pedagogical talents showed differences in many ways. Excellent teachers of high-risk students had the most child-centred view. Not only did they pay attention to students' needs while planning and organizing lessons, but they also found the students' feedback important, much more than other subsamples. They also said in high proportion they can handle the challenges related to the societal level of their work. Among all the sub-samples, they indicated most frequently that excellent teachers should be happy, initiative and practical. Supervisor teachers unanimously indicated that good teachers should be highly cooperative and also that excellent teachers should be friendly and flexible. It turned out from the research that excellent teachers of gifted children used significantly fewer teaching methods than the other group. Among all sub-samples, they were the ones who found the competences of "developing student groups and communities" the least important. The data showed that the teachers in this sub-group felt less able to adapt to the changes related to the societal level of their work. The words "theoretical",

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"isolated", "serious", „distant" appeared in a significantly higher proportion among these teachers when speaking about pedagogic talents in general. These words were frequently used when spoking about their own characteristics.
Discussion: The results of the excellent teachers of high-risk students and supervisor teachers showed similarity in many regards. Both groups seemed to be methodologically well-prepared, and able to give varied enjoyable lessons, as well as to develop student communities; and to carry out continuous reflective practice. Excellent teachers of gifted students focused on academic knowledge much more than other sub-groups. They also planned and managed their lessons differently. The background of this phenomena could be that their students' knowledge and motivation is more homogenous.
Limitations: Although the size of the sample was not representative, the study confirmed and complemented former relevant research.
Conclusion: The results showed that pedagogical talents can have multiple manifestations., which can be caused by the wide range of pedagogical work and the related roles. On the other hand, there are different teachers' characteristics and competences. The study also showed that teachers' views about excellent teachers are closely connected to the particularities of the taught student group. The researchers hope that these results can be an inspiration for further studies in this field.

Key words: excellent teacher, characteristics, teacher of gifted students, teacher of high-risk students.

Introduction

The main question of the study was how excellent teacher can be characterised by personalities and competences according to effective teachers and their colleagues.

Examining teachers' performance has gained increasing attention in recent years, but it is also clear that there is no unified concept of what an effective teacher exactly should be. This study uses the expression of "effective teacher" by describing those who had been the most successful in helping students to learn (Walker, 2008).

The characteristics required for practicing the teaching profession effectively very often seem to be special features of personality. Many authors in literature emphasised the role of those personal qualities (from positive, flexible, caring, enthusiastic, fair, forgiving to empathetic, encouraging, possessing sense of humour, etc.), which are mainly developed before the teacher training process (Wortruba & Wright, 1975; Demmon-Berger, 1986; Norton, 1997; Wubbels et al., 1997; Walker, 2008). However, many researches focused on the features of effective teachers in a broader sense, placing an emphasis on the cognitive skills, as well as academic knowledge for being an excellent teacher (Good & Brophy,

1994; Redfield & Rousseau, 1981; Rosenshine & Stevens, 1986; Roueche et al., 1986; Cotton, 1995; Carter, 1990). These skills and knowledge can be developed by trainings and during professional practices (Geršicová, 2016, Geršicová & Barnová, 2018). Excellent teachers also reported higher self-efficacy beliefs than their colleagues (Caprara, Barbaranelli, Steca, & Malone, 2006; Tschannen-Moran & Hoy, 2007).

The difference among sample teachers according to the specific nature of the taught student group has also gained evidence. Speaking about effective teachers of gifted students, earlier research highlighted that outstanding teachers differed from average teachers especially in some personal characteristics and competences such as commitment, achievement-orientation, self-confidence, creativity. They are also experts in their academic field (Bishop, 1968; Whitlock & DuCette, 1989; Chandler & Bean, 1998; Sisk, 1989; Renzulli, 1992; Heath, 1997). Mills (2003) examined the personality types and cognitive preferences of 63 sample teachers of talented students by Myers-Briggs Type Indicator (MBTI). She found that the majority of them showed a preference for an abstract and conceptual orientation preferring creative approaches. It was also shown that teachers had similar personality characteristics to the examined characteristics of their students to a great extent (Howley et al., 1986; Mills, 2003). As for the effective teachers of high-risk students[1], it can be said that supportive interpersonal relations with children, and a calm management style, as well as a respectful, caring, enthusiastic and motivating attitude has an important role to play (Murdock, 1999; Carter, 2000; Corbett & Wilson, 2004; Stronge, 2007). They also take into account the students' needs and experiences in planning and try to differentiate according to them (Fidler, 2002; Pransky & Bailey, 2002). They possess excellent classroom management skills and use a variety of instructional techniques (Pressley et al., 2004; Corbett & Wilson, 2004).

Describing teachers' personal characteristics and professional features, the word competence is often used, including cognitive and practical skills, explicit and tacit knowledge and dispositions (motivation, beliefs, value orientations) which a well-prepared teacher needs to possess (Rychen & Salganik, 2003). Recently standards by every European country are available containing the exact structure and content of these competences (European Commission, 2013).

Studying different aspects of pedagogical talents, we used Hargreaves and Fullan (2012) "professional capital" model for creating the theoretical focuses of the research. It is made up of three different types of capital: human, social, and decisional. Human capital means teachers' personal qualities and their academic knowledge. Social capital includes personal and professional relationships, and communication (see Pil & Leana, 2009). Decisional capital is also an important element as teaching contains a row of complex situations where every moment

[1] "At-risk students are students who lack support to succeed in one or more of the following areas: societal, familial, and school." (Popp, Grant, & Stronge, 2011, p. 276)

requires a professional decision or solving a problem (see Shavelson, 1973; Calderhead, 1989; Regan et al., 2000; Orgoványi-Gajdos, 2016). Based on this theoretical context, our research examined the importance of competences concerning pedagogic talents in three major groups (Kárpáti, 2008; Hargreaves & Fullan, 2012; European Commission, 2013):

- academic competences (subject knowledge, searching knowledge, interest);
- personal and social competences (communication, collaboration, problem solving, sensitivity, flexibility, commitment, etc.);
- pedagogic competences (planning, class management, using methods, assessing, reflecting, etc.).

1 Research methods and sampling

The main question of the study (the research was carried out in Hungary in 2018) was how pedagogical talents can be characterised and which competences can be assigned to it according to effective teachers and their colleagues. Furthermore, it was also tested how they perceive themselves and how that related to their views about effective teachers.

In the research, online questioning using the Likert- and Osgood-scale, as well as open questions touching academic, personal, social, and pedagogic competences was applied. The questionnaire consisted of three main parts beside the background variables.

The first part of the questionnaire asked teachers to judge the importance of teachers' competences concerning pedagogic talents, as well as their preparedness on a four-item Likert-scale (1 - not important, 2 - less important, 3 - important, 4 - highly important). The questions were based on the teachers' competences using the Hungarian teaching standards (see Table 1).

Table 1

Academic, personal, social, and pedagogical competences (based on the Hungarian standards)

- possessing subject knowledge;
- using varied teaching and learning methods (pedagogical content knowledge);
- planning, organizing, and leading the learning process and reflecting on it;
- supporting students' learning process;
- recognizing students' needs and problems;
- supporting students' self-improvement;
- assisting and understanding of individual differences, developing children with special needs;
- supporting and developing student groups and communities;
- supporting high-risk students, developing their cooperation skills;

- doing integration activities;
- evaluation of learning processes and self-reflection;
- efficient communication;
- involvement in professional cooperation;
- efficient problem solving;
- having professional autonomy;
- having commitment to professional development and learning.

The second part focused on the excellent teachers' social and the pedagogical attitudes and teachers' perception of their working climate. This part of the questionnaire contained a four-item Likert-scale with 30 statements (Table 2). The research question was the following: "What kinds of correlations are shown among the sub-samples and the variables (working climate; relationships with parents and students; lesson planning and assessing; professional motivation; professional flexibility, and resilience)?"

Table 2

Statements for Likert-scale concerning social and pedagogical attitudes

Competences	*Fields*	*Statements*
Social competences	working climate	- *There is a good climate in our institution.* - *My colleagues and I mutually support each other.* - *The head of the institution recognizes my work.* - *The working climate should be improved.* - *I can do my job with great autonomy.*
	relationships with parents	- *The relationships with parents cause me a lot of difficulty.* - *The parents' feedback is important for me.*
	relationships with students	- *Students often come to me with their individual problems.* - *I find irritating when the students ask me too many questions.* - *I love my students.* - *I find important the students' feedback on the lessons.* - *The students are very cooperative with me.* - *I have to enforce discipline a lot during my lesson.* - *I pay attention to students' individual needs.*

Pedagogical competences	planning, organizing and assessing the learning process	- *My lesson plans meet the needs of the class.* - *After every lesson I reflect on its successful and less successful parts.* - *I use a variety of assessment forms and tools.* - *I always change the methods used in the lesson.* - *I think I do more for the children's development than my colleagues.* - *I try to give differentiated task to the students.* - *The students work independently rather than in pairs or in groups during the lessons.* - *When opting for teaching methods, I take the specifics of the group into account.*
	professional motivation and commitment	- *Recently, I wonder if another institution would be better for me.* - *I love my job.* - *If I had to choose now, I don't think I would choose the teaching profession.* - *I'm close to burn-out.*
	professional flexibility and resilience	- *I feel I can adapt well to institutional change.* - *I feel I can adapt to the changes related to the societal-level of my work.* - *I feel I can adapt to students with different or special needs.* - *I like challenges.*

In order to identify the personal and social characteristics of different types of pedagogical talents, the Osgood-scale with opposites was used. Eleven terms were chosen from the related literature and their opposites were used with them to see the differences between the answers of the examined sample sub-groups: friendly - cool; distant - direct; conservative - innovative; happy - serious; critical - conforming; initiative - observing; cooperative - isolated; intuitive - rational; strict - lenient; theoretical - practical; rigid - flexible (Demmon-Berger, 1986; Norton, 1997; Walker, 2008). The participants had to choose among the opposites (“A” or “B”) with four possibilities of answers (1 - definitely “A”; 2 -

largely "A"; 3 - largely "B"; 4 - definitely "B"). First, they had to think about talented teachers' characteristics and then about themselves.
All the scaled data were analyzed using descriptive (frequencies, crosstab analysis) and mathematical (correlations, regressions, variance analysis) statistics.
The sample contained 168 in-service teachers from all over Hungary. Three sub-groups were formed from 92 teachers with outstanding results involved by judgment sampling. One of the sub-samples included excellent teachers (N=43). In this group, there were teachers of gifted students that gained awards on the national academic competition in a subject (N=26). In this sub-sample, there were also teachers who got the so-called Bonis Bona Grant (N=17). This is a special Hungarian grant which one can get for their excellent work in the field of talent care (which can be both academic and artistic). The nominees can be suggested by colleagues and parents but a committee of experts decide who receive the grant. The second sub-sample consisted of those who teach efficiently in high-risk schools (N=25). There was also a group of supervisor-teachers who teach in a university practice school (N=24). The control group of teachers (N=76) had similar characteristics to the sample as they were matched by the type of the institution and geographical location. Concerning the background variables, it can be said that 80% of the sample were females and 20% were males. 50% of them worked in primary schools, 47% of them in secondary schools and 3% of them in vocational school. The majority of respondents worked in institutions operating in a larger city (67%), 15% worked in the capital, and 18% worked in villages.

2 Findings

2.1 The importance of teachers' competences concerning pedagogical talents and the teachers' preparedness

Firstly, the features of pedagogical talents/effectiveness relating to the competences in the national standards were analysed. On the whole, it can be said that on average of 90% of the respondents consider the existence of these competences as essential for being an effective and outstanding teacher. A significant difference was shown concerning the importance of some competences. For "supporting students' learning process" and "having professional autonomy" competences, only important and highly important answers were given. As much as 20% of the participants said that the teachers' competence for "developing children with special needs" was not so important. Effective teachers of high-risk students and supervisor teachers considered the competences for "supporting high-risk students and doing integration activities" (Table 3), "developing student groups and communities", "recognizing students' needs and problems", as well as "using varied teaching and learning methods", significantly more important than the teachers of gifted children.

Table 3

Importance of "supporting high-risk students, developing their cooperation skills, and carrying out integration activities"

	Highly important	*Important*	*Less important*
Teachers of gifted students	35.7	54.8	9.5
Supervisor-teachers	43.5	56.5	0.0
Teachers of high-risk students	78.3	21.7	0.0
Control group	26.0	61.7	12.3
All	38.5	53.4	8.1

chi-square, p=0.001

It is worth mentioning that the teachers of high-risk students and the supervisor-teachers considered "planning, organizing and leading the learning process and reflecting on it" - which is one of the key-competences - highly important or important. In contrast, only 46.5% of teachers of gifted students answered that it was highly important and 2.3% of them considered it not important at all (Table 4).

Table 4

Importance of "planning, organizing and leading the learning process and reflecting on it"

	Highly important	*Important*	*Less important*	*Not important*
Teachers of gifted students	46.5	51.2	0.0	2.3
Supervisor-teachers	66.7	33.3	0.0	0.0
Teachers of high-risk students	69.6	30.4	0.0	0.0
Control group	44.6	45.9	9.5	0.0
All	51.8	43.3	4.3	0.6

chi-square, p=0.050

During the factor analysis, we created four factors which explain 58 percent of the total variance. Variables of the first factor related to student development are therefore, called student-centric. In the second factor (pedagogical activity-centric), planning, analysis, and reflection in the pedagogical process were the most important. In the case of the third factor, professional development and autonomy were highly valued, which are the characteristics of traditional professions, so we call them profession-centric. In the fourth factor (education-centred), the value of problem solving, effective communication and subject

preparedness is emphasized - these competences are directly linked to the educational process (Table 5).

Table 5

Competences required for pedagogical excellence (factor scores)

	Student-centric	*Pedagogical activity-centric*	*Profession-centric*	*Education-centred*
Supporting students' self-improvement	**.757**	.131	.210	-.011
Supporting students' learning process	**.695**	.019	-.106	.422
Recognizing students' needs and problems	**.667**	.164	.183	-.117
Assisting and understanding the individual differences, developing children with special needs	**.660**	.382	-.054	.189
Supporting high-risk students, developing their cooperation skills, carrying out integration activities	**.523**	.264	.404	.165
Supporting and developing student groups and communities	**.517**	.398	.398	-.124
Planning, organizing and leading the learning process and reflecting on it	.250	**.803**	.037	.079
Evaluation of the learning process and self-reflection	.268	**.707**	.308	.023
Using varied teaching and learning methods (pedagogical content knowledge)	.038	**.616**	.025	.404
Having commitment to professional development and	.155	.117	**.748**	.194

learning				
Having professional autonomy	.065	.017	**.731**	.105
Taking part in professional cooperation	.079	.239	**.479**	.475
Efficient problem solving				**.653**
Efficient communication	.179	.152	.216	**.603**
Possessing subject knowledge	.400	-.028	.176	**.589**

Varimax, KMO=0,790

Only the third factor shows a significant difference between the sub-groups (p=.001). Supervisor-teachers and teachers of high-risk students are over-represented in this factor, which emphasizes the professional nature of the teaching profession.
In regard to self-efficiently, teachers of gifted children and the control group reported significantly lower preparedness for "using varied teaching and learning methods" than the other sub-sample.

2.2 The characteristics of pedagogical talents related to social and the pedagogical attitudes

The characteristics of pedagogical talents related to social and the pedagogical attitudes were examined by means of a four-item attitude-scale. The data showed different results by sub-samples.
Effective teachers of high-risk students reported paying more attention to the needs of students or the taught group (r(25)=.260, p=0,001), and using differentiation (r(25)=.295, p=.000). This group of teachers felt the most able to adapt to the changes related to the societal-level of their work (r(25)=.242, p=.002) among the sub-samples. They also reported the best working climate (r(25)=.259, p=.001) compared to other groups.
Supervisor teachers mostly felt that students often come to them for support with their individual problems (r(24)=.222, p=.000). However, fewer of them felt recognized by the head of their institution. (r(24)= -.298, p=.006).
Effective teachers of gifted students assign different tasks according to children needs (r(26)= -.285, p=.000) the least frequently from among the sub-samples.
Teachers of having Bonis Bona Grant indicated the lowest number of discipline problems during the lessons (r(17)= -.241, p=.002).
Taking a look at the whole sample, it can be said that those teachers who paid attention to making their lesson plans differentiated felt that they could meet their students' needs (r(168)=.468, p=.000) and used varied assessment methods

(r(168)=.615, p=.000). Those who focused on students' needs found their students very cooperative (r(168)=.477, p=.000). Those who found the students having too many questions irritating had significantly more problems with discipline (r(168)= .227, p=.003). A good working climate and positive feedback from the head also showed correlation (r(168)=.559, p=.000).

2.3 Personal and social characteristics typical for pedagogical talents

The personal and social characteristics of pedagogical talents were examined using the Osgood-scale. Regarding the opposites, the following results were obtained in the sub-samples.

Friendly (1) - cool (4): The majority of the participants thought that an excellent teacher is a friendly person (M: 1.32, SD: .572). This fact was shown in the highest proportion by supervisors (M: 1.15, SD: .366) and the lowest by teachers of gifted children (M: 1.46, SD: .706). At the same time, data also showed that the respondents judged themselves much more cool (M: 1.55, SD: .655) than they expected from an excellent teacher.

Distant (1) - direct (4): According to the respondents, a talented teacher is rather direct (M: 3.30, SD: .654). However, 15% of teachers of gifted children thought that talented teacher is rather distant (M: 3.08, SD: .796). Also the members of this group considered themselves more distant (M: 2.96, SD: 824) compared to the other sub-samples.

Conservative (1) - innovative (4): According to the participants, a talented teacher is innovative (M: 3.35, SD: .727). This fact was often indicated especially by the teachers of high-risk students (M: 3.78, SD: .424), as well as the supervisors (M: 3.75, SD: .444), and less frequently by the teachers of gifted children (M: 3.04, SD: .916). As far as their own self is considered, 38% of the teachers of gifted children regarded themselves as conservative (M: 2.81, SD: .895). The majority of the other sub-samples found themselves definitely innovative - especially the teachers of high-risk students (M: 3.48, SD: 759).

Happy (1) - serious (4): The majority of the participants indicated as one of the characteristics of pedagogical talents happiness rather than seriousness (M: 1.81, SD: .758). Teachers of high-risk students thought so the most (M: 1.59, SD: .694) and teachers of gifted children thought so the least (M: 2.08, SD: .845). However, some of the respondents judged themselves more serious than they expected from the exceptional ones - especially the teachers of gifted children (23%).

Critical (1) - conforming (4): Respondents characterized a talented teacher as more conforming than critical (M: 2.88, SD: .730). Comparing the sub-samples, this fact was indicated in the highest rate among the teachers of high-risk students (M: 3.11, SD: .577), while the lowest among the teachers of gifted children (M: 2.62, SD: .752). Broadly similar data were obtained as for their self-perception in this regard. The questioned teachers perceive themselves as rather conforming (M: 2.88, SD: .783) but this rate was the lowest among the

teachers of gifted (M: 2.62, SD: .898) and the highest among the teachers of high-risk students (M: 3.00, SD: .784).

Initiative (1) – observing (4): Being an effective teacher was associated with the initiating rather than observing (M: 2.09, SD: .716). The former gained higher rates especially among the teachers of high-risk students (M: 2.00, SD: .693) while the latter especially among the supervisor teachers (M: 2.35, SD: .745).

Cooperative (1) - isolated (4): The respondents unanimously believed that an effective teacher needs to be cooperative (M: 1.35, SD: .774). All the supervisors thought so (M: 1.00, SD: .000), but some of the teachers of the gifted were not so sure (M: 1.73, SD: 1.079). Among them, there were the most persons who found themselves rather isolated than cooperative (M: 1.85, SD: .787). This proportion was the lowest among teachers of high-risk students (M: 1.41, SD: 844).

Intuitive (1) - rational (4): The results for "intuitive – rational" showed that, according to the respondents, an exceptional teacher is a more rational person than an intuitive one (M: 2.55, SD: 770). Based on analysing the data by sub-samples, it can be said that this fact was confirmed mostly by the teachers of gifted children (M: 2.73, SD: 677) and less frequently by the supervisors (M: 2.30, SD: .865). Moreover, teachers in all sub-samples tended to perceive themselves as rather rational (M: 2.62, SD: .810).

Strict (1) - lenient (4): Excellent teachers should be stricter than lenient according to the responding teachers (M: 2.15, SD: .596). Leniency gained higher rates in the sub-sample of the teachers of high-risk students (M: 2.30, SD: .555) and supervisors (M: 2.40, SD: .503), while lower rates were observed in the group of teachers of gifted children (M: 2.00, SD: .693). Mainly the control samples saw themselves more lenient (M: 2.44, SD: .636) than they expected from the talented teachers (M: 2.09, SD: .585).

Theoretical (1) - practical (4): An exceptional teacher is a rather practical person according to the respondents (M: 3.05, SD: 567). Especially the teachers of high-risk children thought so (M: 3.33, SD: .480), while 38% of the teachers of gifted students think that talented teachers are rather theoretical (M: 2.69, SD: .618). The same applies to themselves. Most of the teachers of high-risk children perceived themselves as practical person (M: 3.37, SD: .492). The opposite is true for the teachers of gifted students who consider themselves theoretical persons (M: 2.42, SD: .758).

Rigid (1) - flexible (4): With regard to the total sample, a good teacher should be flexible (M: 3.54, SD: .578). The data showed that supervisors agree with that most strongly (M: 3.70, SD: .470), and the gifted children's teachers are less confident about it (M: 3.23, SD: .430). There were some teachers (15%) who view themselves as rather strict, especially the teachers of gifted children (M: 3.04, SD: 599).

3 Discussion

The excellent teachers' views about pedagogical talent showed diversities in many ways. The results of the excellent teachers of high-risk students as well as supervisor teachers had similarity in some regards. Both groups reported to be methodologically well-prepared, and able to give varied enjoyable lessons, as well as to develop student communities; and to do continuous reflective practice. They reported in the highest rate that excellent teachers should have been more innovative than conservative. It turned out that excellent teachers of high-risk students had the most child-centred views as they pay attention to students' needs and the special features of student groups while planning and organizing their lessons. They found feedback from students more important than the other sub-samples, and they felt be able to adapt to the changes connecting societal-level of their work better than the other groups. They reported in the highest rate that excellent teachers should be happy, initiative and practical. Supervisor teachers were the only sub-sample where all of the participants indicated that a good teacher should be highly cooperative. They reported in the highest rate that excellent teachers should be friendly and flexible.

Excellent teachers of gifted children reported that they used fewer teaching methods than the other groups. Among all sub-samples, they were the one which found the competences of "supporting high risk students and doing integration activities" and "developing student groups and communities" the least important. The data shows that teachers in this sub-group did not usually differentiate and they felt less able to adapt to the changes related to the societal-level of their work. The words "theoretical", "isolated", "serious", „distant" were used significantly more frequently by these teachers when speaking about pedagogical talents and about their own characteristics. These data can be influenced by the fact that students they teach form a homogenous group and those children have a similar level of competences.

Looking at the whole sample, the following correlations were outlined. Those who find feedback from students important also take students' individual needs into consideration, and they have fewer discipline problems as well. Teachers using differentiation during planning and organizing lessons also use varied forms of evaluation. It is outlined that those teachers who regularly reflect on their pedagogical practice pay more attention to the students' needs and the specifics of the group of students. Feeling good in a school as a teacher mainly depends on the workplace climate which relates to the mutual support of colleagues and the positive attitude of the head of the school. It was also shown that those teachers who find their workplace community supportive, as well as get enough professional autonomy in their work, can adapt to the changes in the institution better.

Conclusions

The results confirmed the finding of former research on the characteristics of talented teachers and also provided extra details about the nature of excellence concerning the teachers of high-risk students and the teachers of the gifted ones. The research showed that pedagogical talents have multiple manifestations in different forms of teachers' characteristics, skills and the varied dimensions of pedagogical work. The results of the excellent teachers of high-risk students and supervisor teachers showed similarity in many regards. Both groups seemed to be methodologically well-prepared and able to give varied, enjoyable lessons, as well as to develop student communities; and to carry out continuous reflective practice. Excellent teachers of gifted students focused on academic knowledge much more than the other subgroups. They also planned and managed their lesson methodologically more simply. These phenomena could be influenced by the fact that their students' knowledge and motivation are more homogenous.
It also turned out that the teachers' views about excellent teachers are closely connected to the specific characteristics of the group of students they teach.

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Interviews with Teachers about Inclusive Education

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Abstract:
Introduction: In the proposed paper, the key findings of the national project "School Open for Everyone" are presented. The research focused on the conditions and preparedness of schools for inclusive education. As a part of the project, an investigation into first-grade teachers' attitudes towards and opinions on the education of pupils with special educational needs in primary schools was carried out.
Methods: In the research, the qualitative phenomenological method based on the grounding theory was applied. The sample consisted of 218 female teachers with a minimum of 20% of disadvantaged students in their classroom.
Results: The main findings show that the teachers' opinions and attitudes towards inclusive education are positive and they appreciate their cooperation with specialists in schools. The research revealed some barriers to the realization of inclusive education - e.g. the disadvantaged children's poor school attendance or their general unpreparedness for school.
Discussion: In their suggestions, the respondents did not come up with any new, revolutionary or creative ideas. Therefore, searching for solutions should not be limited to teachers' suggestions, but inspiration should be found in examples of good practice from abroad and in the activities of creative teachers and movements.
Limitations: Having "only" a homogenous sample of first-grade teachers can be perceived as a limit, but it is balanced by the fact that these teachers represent the children's first contact with schools and with people outside their families.
Conclusions: The key findings show that teachers have positive attitudes towards the concept of inclusive education, but they call for more favourable conditions ensured by the state and the respondents proposals were located externally. The findings revealed a number of new or growing problems to be immediately dealt with and an urgent need for changing our school system.

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Key words: inclusion, diversity, teachers, special education needs, inclusive schools, causal attribution.

Introduction

The UNESCO Salamanca Statement (1994) initiated intensive international efforts to implement inclusive education into school systems. As clearly declared in the Statement, it is a necessity to develop and build inclusive education and successful education for all. The Salamanca Statement was adopted by the Slovak Republic as the national education concept for all pupils, especially the disadvantaged ones. As a result, in the last 15 years, several extensive research studies on the realization of inclusive education in Slovakia have been carried out. In Slovakia, the Act no. 245/2008 Coll. on education and training (School Act) and on amendment of certain acts is still in force. It was created on the basis of the theory of creative-humanistic education, which includes the principle of education for all. Many authors working on the realisation of inclusive education in Slovakia (Hlásna, 2014; Barnová & Krásna, 2018; Geršicová, 2012; Tamášová, 2019; Zelina, 2019, Porubčanová & Pasternáková, 2018, etc.) have adopted this orientation. A lot of research on inclusive education have been published at the University of Prešov (Portík, Horňák and others), at the Pan-European University in Bratislava (Gajdošová et al.), at the Matej Bel University in Banská Bystrica (Kosová et al.), and at the Catholic University in Ružomberok (Klein, Šilonová).

In Slovakia, three important projects on inclusive education supported by the European Union have been realised. The first one was focused on children and pupils from marginalized Roma communities. It dealt with the opportunity to apply the all-day educational system in schools with disadvantaged - especially Roma pupils. In the second project entitled "The Project of Inclusive Education" (PRojekt INkluzívnej EDukácie - PRINED), in schools with a high proportion of disadvantaged pupils, they investigated into the opportunities in the work of inclusive teams, as well as teaching staff's and specialists' attitudes towards and opinions on inclusive education. Within the third project "School Open for Everyone" (Škola otvorená všetkým), the research was focused on the conditions and preparedness of schools for inclusive education. As a part of the project, the investigation into first-grade teachers' attitudes towards and opinions on the education of pupils with special educational needs in primary schools was repeated after a year. The decision regarding the selection of first-grade teachers in primary schools was based on the presumption that the opinions and attitudes of first-grade teachers are decisive as the first year of school attendance represents a turning point for motivating children and the development of the child - pupil - teacher - education relationship. It specifically applies to children from socially disadvantaged environments as many of them have neither attended kindergartens, nor speak Slovak.

1 Purpose of the study

The purpose of the study was to identify first-grade teachers' opinions on the opportunities for the acceleration of the education and the personal development of pupils from disadvantaged environments and with special educational needs in primary schools. One of the goals was to carry out a qualitative analysis of placing the causes of failure of disadvantaged pupils in schools and to make proposal for the improvement of inclusive education.

2 Research methodology

In the research, the qualitative phenomenological method based on the grounding theory was applied. The grounding theory is a systematic methodology in social sciences including building theories by means of gathering data and their analysis. From among a number of conceptual approaches to inclusive education research, we opted for Frederickson and Cline's (2015) theory, and Booth's (2007) and Lukas's (2012) methodological procedures for the purposes of observing the relevant fields of schools' preparedness for inclusive education (schools' practice, policy, and culture). The causal attribution of success and failure was based on the classification by Kelly (1972) and his attribution theory, which classifies causes into internal vs. external, and reversible vs. irreversible. Throughout the realization of the "School Open for Everyone" project, quantitative and qualitative approaches were applied - questionnaires for school directors, the teaching staff, and specialists were used, the participating schools' preparedness for inclusive education was investigated into, and the parameters of the barriers to the implementation of inclusion were observed. A triangulation of methods was used for the interpretation of the gathered data in the final report. Within this battery - set of methods - the role of first-grade-teachers' approaches towards inclusive education in primary schools was dealt with.

2.1 Research sample

130 primary schools and 50 kindergartens participated in the project "School Open for Everyone". By selecting schools, the basic criterion was that at least 20% of children and pupils were from socially disadvantaged environments. In one of the partial tasks - interviews with teachers - the sample grew to 218 teachers as in some primary schools, there were more than one class of first-graders. On average, there were 18 pupils in one class, among which 9 were from socially disadvantaged environments. The selection of the sample was determined by the importance of children's first contact with schools. The involved teachers had several years of teaching experience and taking into account the sample of disadvantaged pupils, it can be considered a representative sample of teachers working with these pupils.

2.2 Methods

In the study, the method of structured interviews was applied. Interviews with the participating teachers were carried out by trained interviewers. The transcript of interviews was 139 pages long. The interviewers were instructed to ask clear questions, encourage teachers to answer the questions, but they were not allowed to ask additional questions, or questions, which could evoke the impression of "investigation" on the respondents' knowledge. In the first stage, the teachers' responses were transcribed and protocols were made, open coding was applied. Subsequently, in the second stage, axial coding was carried out. It was based on six basic themes with the possibility to add new proposals. The teachers were asked the following seven questions:

1. Do you consider your school inclusive? Why "yes" or "no"?
2. What is the most important thing by creating an inclusive school environment?
3. How do you evaluate the collaboration with specialists?
4. Are children from socially disadvantaged environments entering the first grade of primary schools sufficiently prepared?
5. What can be the positive effects of the "School Open for Everyone" project for inclusive education? What should be done?
6. What should be done in order to improve especially Roma pupils' education?
7. Have you got any other suggestions?

3 Results

3.1 Do you consider your school inclusive? Why "yes" or "no"?

Even though the teachers were asked whether the school was inclusive or not, we were not sure if they understand what inclusion means and we were interested in what the criteria based on which they evaluate their school as inclusive are.

1. Most frequently, the respondents' answers showed that they perceive the notion of inclusive schools in a broad sense. The typical answers were: *"Our school is inclusive - we attempt to provide pupils with equal opportunities to study.";* or *"I think yes - our school tries to place an emphasis on every pupil's right for high quality education."*
2. In a number of answers, the fact, that disadvantaged pupils with a range of handicaps are educated in the school was pointed out. Examples of answers: *"Our school is inclusive. In the classes, pupils with learning disorders, with physical and hearing disabilities are included*."; or *"Yes, handicapped pupils and intact pupils are educated together in the same classroom."*; *"Yes, in the classrooms, there are students with various ethical backgrounds."*; *"Yes, Roma students are prevailing."*
3. A high frequency of answers by teachers seeing their school as inclusive because of the presence of specialists was observed. Examples of responses:

"Yes, there are specialists in the school and we have a high-quality cooperation with all teachers. It makes the work of individuals easier. We have many students with special educational needs."; *"Our school is inclusive because it employs a special needs teacher and a psychologist."*, or *"Yes, the presence of specialists, the teachers' approach to students, the school's concept."*

4. Some respondents saw inclusive education through the application of specific methods of work. Example: *"Our school is inclusive as the teachers use activating methods in the teaching process - venn's diagram, didactic games, T - scheme, inserta, etc. They try to alternate various methods and so, increase pupils' activity."*; "*Yes, in our school, we apply an individual approach to pupils and we show interest in them as personalities."*; *"Yes, our school provides each pupil with full-fledged forms of education. Each pupil - alongside with traditional education in the classroom - is offered an opportunity to take part in after-school activities. During classes, pupils use multimedia technology and a range of didactic techniques..."; "Every day, pupils are provided with an opportunity to lean in a positive atmosphere and their abilities are taken into account."*
5. They accentuated various aspects of after-school and extracurricular activities when describing inclusive schools, e.g.: *"Yes, from the first grade, pupils are in mixed ability classes, they visit various cultural or sports events, are involved in extracurricular activities, take part in competitions, have rehearsals, etc."*; *"Yes, our school is inclusive as both in classes and during extracurricular activities, healthy, physically and mentally disadvantaged children are educated together. Teacher assistants help us, which allows pupils to work at their own pace, and they are also provided with help and support."*
6. Also answers criticising some aspect of the school's work occurred. E.g.: *"Pupils have equal opportunities to learn. Roma pupils have additional opportunities to improve within projects, but they do not show much interest."*; *"Our school is not inclusive. Most pupils come from socially disadvantaged environments, their parents are not interested in any cooperation. Efforts made towards inclusion are not successful because of parents and their contradictions!"*

We also found quaint answers: *"Our school is inclusive for sure. In our school, besides traditional classes, there are also special needs classes. Pupils from the primary school's traditional classes and special needs classes meet in the hallways every day and during joint school events."* Another example of weird statements: *"Our school is conclusive as healthy and disadvantaged pupils study together..."*

3.2 What is the most important thing in creating an inclusive school environment?

The gathered answers were ordered according to their frequency:

1. Cooperation of the whole teaching staff and specialists. Some statements: *"The cooperation of teachers with teacher assistants and specialists."*; *"Cooperation with specialists and pupils' parents."*; *"A greater cooperation with specialists (school psychologists, speech therapists, etc.)."*; *"Cohesion in teacher-pupil and pupil-parent relationships."*; or *"Provide teachers with help and assistance - to hire teacher assistants, psychologists, …"*
2. Collaboration within the inclusive team is closely related to a favourable school climate and atmosphere. Some typical answers: *"Positive atmosphere, an individual approach to students."*; *"School climate, the teacher's personality, didactic and material school equipment."*; *"By creating inclusive school environments, school climate enabling pupils to attend mainstream schools is very important - even indispensable. Our school environment provides such conditions that even parents participate in making their children feel good at school."*; *"A pleasant atmosphere, desire to work and accepting all pupils as they are."*; *"School atmosphere, mutual respect between all stakeholders - participants of the educational process."*
3. Teacher's personality – during the interviews, teachers commented on various aspects of teachers and specialists. Some ideas: *"Patience, tolerance, trust, and efforts made to help."*; *"A teacher seeing the differences in pupils who approaches to pupils individually and compares their results with their earlier results and thus, monitors their growth and development, as well as their needs. The result is that pupils experience success as they find themselves in a supportive social environment."*; *"Teachers should possess sufficient knowledge about learning styles. Sufficient equipment - teaching aids and using interactive whiteboards and digital technologies."*; or *"Personnel's zeal."*
4. Parents and their share on creating an inclusive school environment is a must. Here are some examples of teachers' statements*: "Cooperation with parents and the best possible lesson planning from the aspect of differentiated education."*; *"After school and school activities with the pupil's families, various performances, rehearsals, sports and cultural events."*; *"To be spatially, materially and technically well-equipped, creation of inclusive teams and their cooperation with the pupils' families. The school management's willingness to be inclusive."*
5. Surprisingly, creating favourable conditions - starting from the school's material and technical equipment, through teaching aids, technical tools etc. - did not rank high as for the frequency of their occurrence. Examples of teachers' comments: *"Specialists - teaching aids, courses."*; *"School*

climate, the teacher's personality, the school's didactic and material equipment."; *"Family-school cooperation. Favourable conditions, teaching aids, sufficient number of assistants."*; *"A corner - a place in the school, where there are school supplies, teaching aids, textbooks, and a person who has enough time to pay attention to them."*; or *"To prepare appropriate didactic and methodical materials."*

6. Rarely but still, also other requirements for creating inclusive school environments occurred: *"The most important thing is the state's help, to have a sufficient number of specialists helping in classrooms with included students."*; *"To adapt education to the individual needs of pupils with special educational needs."*; *"To ensure favourable conditions for their education - teacher assistants on lessons, appropriate diagnostics of pupils that is helpful in the teachers' work."*; or *"Pupils should not feel that they are 'different'."*

3.3 How do you evaluate the collaboration with specialists?

We presumed that the answers of the vast majority of first-grade teachers in primary schools will be positive. We were interested in things that they appreciate in the process of cooperation. Below, we present some of their comments: *"I think the cooperation is positive - it has benefits for both the pupils and teachers."*; *"Positively. Specialists are a big help in working with special needs students - they provide us with guidance, give us advice, and they know what the problems are."*; *"Positively. They are a big help, but there is a lack of them."*; *"I evaluate the cooperation positively; I am really satisfied with the work of the assistants."*; *"They are helpful, especially in the application of an individual approach and they help during lessons."*; *"The cooperation is on a high, professional level."*; *"They are helpful; they make teachers' job easier. I surely recommend to have them in the classroom during lessons, they can help the pupils with special educational needs."*; *"I evaluate the cooperation with specialists very positively. In the school, a social pedagogue and a teacher assistant implementing the "School Open for Everyone" project are at the disposal. They are responsible, helpful, and full of fantasy in practicing their profession. Our school does not have a school psychologist."*; *"Positively, although there are some barriers (disinterest by pupils and their parents)."*; *"I consider the cooperation with specialists beneficial. The teacher assistants', school psychologists' and social pedagogues' help is really positively evaluated not only by me, but also by pupils during their everyday activities in the classroom or outside it."*; or *"Very positively. Currently, they are really needed in schools."*

Similar answers occurred in all the gathered reactions. Exceptionally, we encountered two types of responses of a different character. Schools without teacher assistants or specialists, which could cover the cooperation with families, belong to the first type. In these schools, teachers talked about a partial

cooperation or usefulness. In the answers, it was formulated by the respondents as follows: *"I am not an expert, so, I am not able to help. We need special needs teachers, speech therapists - they visit families, but, for teachers, such help is not enough."* In some cases - fewer than ten - we received the following answers: *"Poor."*; or *"Insufficient."*
In general, the cooperation between the teaching staff and specialists can be evaluated highly positively.

3.4 Are children from socially disadvantaged environments entering the first grade of primary schools sufficiently prepared? What are the main problems?

Also in this case - similarly to the responses regarding the cooperation between the teaching staff and specialists - many of the answers occurred several times. In the first part, there is a list of fields, in which pupils are prepared for school and in the second one, there are the teachers' statements regarding their satisfaction with pupils' school preparedness.

1. Most frequently, there is not only one field of unpreparedness - usually, there is a whole list of them. Below are some examples of the answers of this type: "*No. Speech, hygiene, attendance."*; *"Pupils with special educational needs come to the first grade unprepared. They do not speak Slovak, their hygienic habits are poor, they do not have school supplies. Any form of cooperation with parents is difficult. The pupils are not able to learn hygiene and discipline in the school. It takes longer while parents ensure school supplies, slippers, toiletry bags, sports clothes for PE classes, even though they receive a list for the first grade during the enrolment to the primary school."*; *"Problems with communication. Children - pupils - come from socially disadvantaged environments with poor hygienic habits. They cannot name colours, there are problems with their school attendance."*; *"Speech - very poor vocabulary. Hygiene - pupils have poorly developed hygienic habits, self-service activities. Discipline, routine - they do not respect the rules, they do not have any experiences with following rules at home."*; *"Children with special educational needs come to school unprepared. They often lack pre-school education in kindergartens. Their parents have not taught them the basics of hygiene, they have communication problems, problems with speech, and discipline issues."*; *"Children with special educational needs are not prepared for school. The major problem is the existing language barrier - speech and language issues. They lack both internal and external motivation. Poor motor skills. Behavioural disorders, aggression - verbal and non-verbal."*; *"No. Basic hygienic habits, self-service (dressing, tying laces, etc.), they do not understand the teachers' instructions."*; *"Children come to school unprepared, they often speak only the Roma language, they do not know the toilet, attend school irregularly, and lack discipline."*; or *"Children with special educational needs often have improper pronunciation, incorrect*

pen grip, are insufficiently socialized. Many of them have problems with following rules and have discipline issues at school."

2. Exceptionally, also more positive opinions occurred. Below are listed some of the teachers' responses: *"We have a zero grade class, so, our pupils are prepared."*; *"If a child attends the zero grade class, then he/she is sufficiently prepared for the first grade."*; *"They come to school uncultivated, only those who attend the zero grade class achieve a sufficient level of preparedness for the first grade."*; *"If they attend kindergartens, everything is ok."*; or *"Not all pupils from socially disadvantaged environments are weak. Some of them only need to attend the zero grade class or a kindergarten."*

3.5 What can be the positive effects of the "School Open for Everyone" project for inclusive education? What should be done?

The same answers occurred repeatedly in this case, too. The process of coding based on the criteria of field and frequency have brought the following results:

1. Based on the following statements, "School Open for Everyone" brings better educational results: *"Better learning results."*; *"Pupils achieve better results. A willingness on both sides."*; *"Better performance of pupils with special educational needs during the educational process. A better use of various methods."*; *"The pupils spend more time in the school, which very slowly increases their educational level. Involvement in leisure time activities."*; *"They spend their leisure time by meaningful activities, they develop new skills, it comes to an improvement in doing their homework and learning at home."*; *"Help by specialists and teacher assistants during the educational work."*; *"The "School Open for Everyone" project can have the following positive effects: paying positive attention to pupils. Correction of pupils' inappropriate behaviour. Better school achievement."*; *"The first impulse towards increasing the quality of education provided to pupils with special educational needs, development of pupils' working habits, promoting self-confidence, improvement of communication skills and leading children towards independence. A better quality of relationships between teachers and pupils."*; or *"The "School Open for Everyone" project and its benefits: inclusive teams, better achievement in all fields, after-school activities, hygienic habits, better discipline, vocabulary, inclusion into the collective. It requires financial and material resources, an inclusive team and the parents' willingness to cooperate."*
2. "School Open for Everyone" improves cooperation between specialists, the teaching staff and the school's management. *"To take the advantage of the cooperation between teachers, assistants, and special needs teachers in schools in order to improve the educational results of pupils with special educational needs, to improve the cooperation with parents."*; *"Teacher assistants are a big help. We do not have a school psychologist. The school has not found a psychologist who speaks Hungarian. The material supplies*

should be distributed to schools at the beginning of the project."; *"The presence of specialists - to make the original idea of the School Open for Everyone project work."*; *"More specialists, to ensure high-quality material supplies for school."*; *"The main benefit of the project lies in the help by assistants and other personnel as they can apply an individual approach to particular children. They receive immediate feedback and they feel supported."*

3. The "School Open for Everyone" project broadens the opportunities for working with students after school, and for an all-day educational system. Examples of opinions: *"Better quality of pupils' home preparation."*; *"Children spend their leisure time with their friends actively practicing their hobbies, they do their homework in the school as they would not do it at home."*; *"Pupils are happy to take part in afterschool activities; and our assistants - together with our teachers - can pay attention to the integrated pupils. Pupils can do their homework in the school, what I really appreciate."*; *"We have been working inclusively in an all-day educational system for several years, leisure time activities."*; *"Greater cohesion of the class, better collaboration among students, there are more opportunities to express one's opinion in a smaller collective of individuals."*
4. Better opportunities to educate pupils. *"The benefits lie in the presence of specialists, a good selection of afterschool activities, developing creativity and talents in sports, music, and art techniques."*; *"Including students into the class based on the level of their knowledge."*; *"Developing the habit of regularity and their relationship to school duties, developing hobbies and interests."*; *"Improving pupils' communication and social skills."; "Leading towards socialization, development of fine motor skills. A close cooperation between all stakeholders, ensuring good material conditions, and providing education to parents, teachers, and teacher assistants are important."*
5. Teaching staff's efforts. *"It requires money and willingness. I wish a lot of success both to us teachers and you*."; *"It requires a lot of effort on the side of the teaching staff, financial support from the state, a creative approach to pupils, support from parents, support from the school's management, teaching aids and less paper work."*; *"School Open for Everyone brings new information at least."*; *"The project is limited in time - during the available period, it can help pupils and teachers in their work, but there is a need for employing teacher assistants and special needs teachers indefinitely, because there are many pupils with special educational needs and where these children are educated, assistants should be present all the time, i.e. normative funding in the case of assistants."*; *"Inclusive education can be beneficial, but only if it is applied for a long time, a systematic approach is required."*

In many of the teachers' answers, there is a whole list of positives, which the School Open for Everyone project could bring. There is an agreement in the below listed fields.

3.6 What should be done in order to improve especially Roma pupils' education?

Firstly, we ordered the suggestions according to their frequency.
The most frequent answers were:

- compulsory pre-school education - kindergartens;
- more specialists in schools;
- new curriculum, new standards;
- change the Ministry of Education's approach to solving the issues of disadvantaged children;
- improve and ensure high quality leisure time activities - after school clubs; all-day educational system;
- improve the cooperation with pupils' parents;
- improve the schools' material, financial and methodical conditions, teaching aids.

Less frequent suggestions were as follows:

- limit the school founders' competencies;
- open zero grade classes;
- edification work;
- involve community centres in the cooperation;
- reduce the number of lessons;
- use more project and experiential learning activities;
- continue with the realization of the project.

The respondents' suggestions were divided into the following fields:

1. What the state should do - examples of teachers' suggestions: *"The biggest change should be made by the Ministry. Create favourable conditions and, above all, take measures to ensure that pupils go to school regularly and parents should bear real responsibility for their children's achievement at school"*; *"On the level of the state and Ministry of Education - to unify the conditions for pre-primary and primary education, to work out methodical guides for working with children with special educational needs, to increase the quality of university education in the field of working with children with special educational needs. On the level of school founders - to provide schools with sufficient funding, to adapt the school's work to the needs of pupils. On the school level - to create a positive environment for pupils, to apply attractive and innovative forms of education, to cooperate with teacher assistants and specialists"*; *"The state - to allocate more finances for schools and teachers."*; *"The state - to change the state curriculum for primary*

schools, to lower the performance standards for these children, to introduce compulsory education in kindergartens from three years of age in order to achieve an active knowledge of the language in children."; *"To ensure compulsory pre-school education for all Roma children. To tighten the penalties for parents responsible for neglecting children and their truancy."*; *"To ensure more assistants, speech therapists, and specialists"*; *"New curricula and teaching aids."*; *"On the level of the state, and the Ministry of Education - to reduce the number of lessons in individual school subjects and a second foreign language should not be compulsory in higher grades."*; *"A better and targeted control over the use of finances from the state in families. Provide more material support."*; *"Edification of families, promotion of employment, realization of long-term projects (not for one, two or three years)."*; *"An unambiguous change of rules for Roma students and their parents. They do not have any duties in relation to their children, they do not have to come to teacher-parent meetings, the children are on a sick leave all the time, they do not care about them, although they get school supplies and lunch for a few cents."*;

2. What school founders should do: *"School founders - they should be willing to listen to teachers and hear their requirements."*; *"School founders - to promote after-school clubs, reduce the number of pupils in a class and to have more field workers in schools."*; *"To reduce the school founders' competences and improve their cooperation with schools."*; *"Compulsory pre-school education, opening zero-grade classes for students who have not taken part in pre-school education."*; *"Attendance - they cannot ensure regular school attendance; paediatricians issue pupils a doctor's certificate of sick leave even retroactively. It comes to failure in this field."*; *"To ensure Roma assistants' help with pupils' hygiene, appropriate communication, speech."*; *"On the level of the school founder - use more project work in the educational process. Pupils achieve better results in the process of experiential learning."* (this should probably be listed for the school, but the respondent addressed it to the founder - author's note); *"With the help of community workers and field social workers, to ensure a better family - school cooperation"*; *"Moral support and creating favourable conditions for after school activities, more opportunities for leisure time activities for children."*

3. What should be changed in families: *"Children should be worked with before their school attendance starts. The current model does not work. Parents do not want to take part in educational activities as it is considered as income, and then their social benefits are reduced. Another problem is pupils' school attendance - pupils should commute for free - as it is with trains (not to have the costs repaid). Their parents are not able to manage the money on*

travelling costs and so, they cannot commute every day."; *"In extreme cases, to remove children from families."*; *"To push parents to improve their children's school attendance, to ensure school supplies, and finances."*; *"Edification of parents."*

4. What schools should do: *"On the school level, we have applied the all-day education system for a couple of years and we promote leisure time activities."*; *"To work out more effective programs for disadvantaged pupils' inclusion into the collective. To visit Roma families in different intervals. To cooperate with the pupils' families."*; *"To cooperate with pupils' parents and the social welfare office."*; *"Sufficient educational programmes for pre-schoolers."*; *"To improve the quality of the family - school cooperation as the parents' interest in their children's education is low."*; *"On the level of the school, better material equipment and teaching aids."*; *"To adapt the school curriculum to the Roma pupils' abilities."*; *"To reduce the teaching content and to adapt it to their habits and abilities. To create favourable conditions (workshops, gyms, etc.). Within the school curriculum, adapt the available lessons to the pupils' needs."*; *"To involve more Roma assistants to the work with Roma pupils as they know their mentality and what their needs are."*; *"To add more specialists and assistants to the inclusive team."*

3.7 Have you got any other suggestions?
"Definitely, it would be good if the project team members could hold the same positions after finishing the project in order to increase the effect and importance of the project and to promote the vision of inclusive education even outside the School Open for Everyone project."

Comments on the suggestions - findings:
If the theory of casual attributions is applied on the list of suggestions, it must be stated that:

- Only a few suggestions related to the work of schools, teachers, or the educational process - internal localisation. None of the suggestions concerned the issues of improving teachers' education (lifelong learning – see e.g. Geršicová & Barnová, 2018), the implementation of activating, creative methods (except for one mention of project work and experiential learning), none of them mentioned alternative schools, procedures, or experimental verification. Below are listed the respondents' typical answers on what should be changed in the work of their school: *Our school does its' best to educate all pupils."* is the typical reaction of the participating teachers when asked about things that could be improved within their schools.
- External localisation could be observed on the requirements placed on the state - ministry - social policy - school founders.

- The interviews were carried out prior to the adoption of new legislation on compulsory pre-school education in kindergartens - it was suggested by several teachers in our research sample.
- Schools participating in the "School Open for Everyone" project worked out desegregation plans for each school, in which their self-reflexive ability to apply the principles of inclusive education in their own conditions was demonstrated (internal localisation of suggestions).
- Based on the theory of casual attributions, it is possible to see the proposed suggestions from the aspect of reversibility/irreversibility. It is about the possible change, its feasibility, where on one side of the continuum, there is the possibility of immediate change (e.g. adaptation programmes for schools) and on the other side, the changes can be realized in a medium-term and then in a long-term horizon (Roma families' attitudes towards education), or the changes are irreversible, i.e. unfeasible or feasible with low probability (e.g. changing the school policy).
- From various points of view, the school attendance of pupils from socially disadvantaged environments is perceived as a problem. *Almost all respondents perceive it as a serious issue*. Pupils' school attendance is the problem of the state - the Government - the Ministry of Education, Science, Research and Sport of the Slovak Republic - Ministry of Interior of the Slovak Republic (school founders), and also the Ministry of Labour, Social Affairs and Family of the Slovak Republic. But school attendance represents a problem for disadvantaged Roma and non-Roma families and, naturally, also for every school and its inclusive policy towards pupils' parents.

4 Discussion

In the presented overview of representative suggestions for improving the quality of disadvantaged children's education, the respondents did not come up with any new, revolutionary or creative ideas. Based on the above, it can be deduced that searching for solutions should not be limited to teachers' suggestions, which are not innovative, but inspiration should be found in the examples of successful school reforms realized abroad (Estonia, Poland, Singapore, etc.), in the activities of creative teachers and movements, and solutions should also be searched for in educational theories, which should make a link between the modern trends in pedagogy and our conditions, culture, history and psyche. That is our task for the future. Unfortunately, almost 30 years of school reform efforts in Slovakia has not lead to success. Also this overview of suggestions and information provided by practicing teachers reveals a number of new or growing problems, which must be immediately dealt with. The overview of teachers' opinions confirms the urgent need for changes in our school system.

5 Limits

Qualitative research in its presented form can be considered a targeted type of research, which - unlike academic (basic) or application research - applies a reflexive, hermeneutic discourse. From the methodological point of view, having "only" a homogenous sample of first-grade teachers can be perceived as a limit, but, on the other hand, these teachers represent the children's first contact with schools and with people outside their families; and - in a broader sense - with education. The application of the method of interviews was confronted by the results of a questionnaire survey realized on the same sample of teachers, as well as the participating teachers' and headmasters' opinions. This way, a more complex picture about the schools' preparedness for inclusive education was created. The realization of interviews by several interviewers can be questioned. Even though they were all instructed, the impact of various local and time, as well as situational variables, which cannot be completely eliminated, occurs. The qualitative methodology based on phenomenological principles of data interpretation brings a lot of data, contents and meanings, which can be generalized and interpreted only carefully. The findings often lead to a need for closer, deeper investigation into the presented opinions, e.g. the disadvantaged children's problems with school attendance.

Conclusions

Targeted qualitative research - unlike other types of research - has three basic goals (Lukšík, 2008):

1. achievement of the contracting authority's objectives,
2. gathering data for a change;
3. a better functioning of things.

In its whole complexity, the research project focused on inclusive education and within one of its parts, the participating teachers' opinions were dealt with in accordance with one of the objectives of the project. The main findings - e.g. the role of teachers' positive opinions and attitudes towards inclusive education, positive acceptance of the pedagogical staff's and specialists' cooperation, the belief that favourable conditions can accelerate the development of children from disadvantaged environments - can form the basis for the educational concept - theory and interpretation of the current situation in the field of schools' preparedness for inclusive education. Also teachers' opinions about the fields and processes which represent barriers to their educational work and the children's progress are important. In particular, these are the obtained information about disadvantaged children's poor school attendance, their unpreparedness for school from the aspect of their speech, language knowledge, as well as from the aspect of their discipline and hygienic habits. It can be assumed that relevant information for change, for creating better conditions in schools in order to fulfil the goals of an inclusive education policy were

obtained. The findings have brought new ideas for further research, especially in the field of destigmatisation and desegregation programmes, which - as the presented research shows - have already been created and realized in some schools.

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Educational Use of Social Media in Higher Education: Gender and Social Networking Sites as the Predictors of Consuming, Creating, and Sharing Content

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Abstract:
Introduction: This study investigates the influence of gender and social networking sites (SNSs) such as Instagram, YouTube, WhatsApp, Facebook, and Twitter on consuming, creating, and sharing content within the educational social media usage behaviors of higher education students. The survey method is applied to measure students' social media usage for educational purposes. So that a more effective use of social media in education can be provided, it is important to understand how university students vary in their educational use of social media. The aim of this study is to examine how higher education students use social media for their educational purposes based on the content and activities with which the students engage. The aim of the research is to determine the correlations, if any, between gender, preferred SNS type, and educational social media in regard to consuming, creating and sharing content.
Methods: The derived scale is administered in Turkey with the participation of a total of 365 university students. Psychometric, validation and reliability analysis of the scale which is used in the study to collect the data were done first. Principal component analysis, exploratory and confirmatory factor analysis, descriptive, correlations and multivariate analysis of variance are applied to analyze the social media usage for educational purposes. Gender and the SNS type were set as the additional predictors of the consuming, creating and sharing content on social media.
Results: The validation and linguistic adaptation of the Inside School Social Media Behavior (ISSMB) scale from English to Turkish is performed first. Results showed that the three factors of the original scale were confirmed. Secondly, the derived scale is administered with the participation of a total of 365 university students. Results indicated that gender difference was a significant factor in explaining the content creation on social media. Instagram, WhatsApp, and YouTube are the most preferred SNSs for educational use among students at the higher education level. No significant effect was reported for the type of the SNS

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used in consuming, creating, and sharing educational content on social media. The type of the SNS used by the students was not found to influence educational social media usage; accordingly, students consume, create and share content, regardless of the type of the SNS they use.
Discussion: Higher education level students prefer watching videos more than any other social media activity for their educational purposes. The second most frequently preferred social media usage activity was reported as searching for the learning resources or information pertaining to schoolwork. Creating content was the least favorable social media usage. When the social media usage purposes focus on schoolwork and are furthermore educational, males' social media usage outperforms the females. Thus, males were more likely to create content by using social media for inside schoolwork purposes than the females. Males were also more likely to have sharing habits than the females in sharing learning resources e.g., class notes with their classmates by using social media for their inside schoolwork purposes.
Limitations: The total number of participants used in the research sample is a limitation of this study. The study data were only collected in Turkey, and so the study results are only regionally generalizable.
Conclusion: Higher education students are consumers of the social media when they use it for educational purposes. Accordingly, students prefer being "passive consumer social media users who avoid active content creating". Students prefer watching the uploaded ready-to-watch videos who avoid instead of creating and uploading their own video content. When sharing items are compared with creating content items, students responded more to the latter. Students do share their information with classmates e.g. exam schedules and lecture notes. Compared to other sharing content usages, students less frequently preferred sharing extracurricular learning resources. The gender difference found herein is a predictor of social networking site usage among young people, and social networking usage changes according to gender. Males are reported as being more "giving" within a school setting when it comes to sharing the educational content with their colleagues and friends. Social media is a reality of our modern lives, one that is growing exponentially; it is highly crucial that researchers facilitate a better understanding of the ongoing changes and developments that are emerging and transforming learning.
Both outside and inside school, the social media usage behaviors of young people can be examined according to different age groups do determine any age-related differences. The subject can be improved with new findings and results from different sample groups.

Key words: social media, educational social media, Facebook, Instagram, YouTube, higher education.

Introduction

Social media can be defined as environments in which people interact, socialize, communicate, and express themselves as they wish through the use of Internet tools and Web 2.0 technologies. Content generation in social media, itself considered an extension of Web 2.0 technologies, is user-based, and the role of users is based on both content production and consumption. Therefore, user roles in social media are called as "prosumers" (Reagle, 2015). The process of interaction in social media is a multifaceted, continuous, and dynamic process that involves the users creating their own content, sharing this content, following up and rearranging the content of others, and being in constant communication throughout all these activities.

Certain social media content, such as a story posted on Instagram or a video uploaded on YouTube, is both consumed and produced by students. Students frequently contribute to online shared content by liking, commenting, or sharing content that is highly relevant to their own personal view or that reflects their ideas in the best way possible. In order to achieve their sharing goals, remaining up-to-date, and not to miss on various happenings and occurrences, students today are more often online than they are offline (Baym, 2015).

In addition to the rapidly increasing number of social media users, the diversity of social media platforms and applications is also expanding. Today, the most widely used platforms that come to mind when we consider social media are likely to be Facebook and Twitter (Rideout, 2015). Established in 2005, YouTube is the world's largest social network with 1.9 billion individual users in 2019. Instant messaging software, such as WhatsApp and Messenger, are also frequently used in everyday life as social networks; these examples show how social media have transformed our daily lives and traditional communication behaviors, as well as how it has led us all into a spiral of further activity. In the last few years, social media usage rates and the time spent on social media platforms has increased exponentially.

In order to understand the youth's social media usage in more detail, the researchers tend to focus on schools attended by youths. Recent research predicts that the social media behaviors of young people can change outside of school hours (Wang et al., 2014; Fox & Moreland, 2015). Some studies suggest that social media behaviors outside school tend to move away from educational and learning goals toward a more emotional and personal direction (Junco, 2012). For example, a meta-analysis revealed a negative relationship between students' academic achievement and their social media use (Huang, 2018). The assumption these researches make regarding young people's social media use inside and outside of school entails different dimensions. By measuring the degree of this difference further research and, the development of a measurement tool in particular was needed to reveal the relationship between the patterns of social media use both outside and inside the school.

How students spend their time online at school is mostly determined by the teachers (Foehr et al., 2010). There are a few studies examining the online activities in which students engage when using social media for schoolwork purposes (Roberts et al., 2005; Selwyn, 2012). Many factors influencing the students' social media use have been found; students' interest, self-regulation, their attitudes to their teachers and parents are among those factors reflecting students' interest (Hao & Jing, 2016).

Discussions on educational social media usage highlight the complexity of those forms of such social media usage actually relate to education and learning. It is argued that creating and sharing content, and subsequent sharing consumption of that created content is a one-way passive consumption of content, despite the process being a communal activity.

The students entering university all have a changing nature, and this is considered to be the most immediate significant aspect of social media use for those in higher education (Manca & Ranieri, 2016). By making it clear that social media tools and applications can bring about new forms of provision in higher education, new types of learning and new types of learners are emerging.

Studies underline that students can simultaneously deal with multiple social networking platforms, and that each social networking platform has its own usage and content dynamics that provide various features, such as self-display, self-acceptance, self-presentation, informality, and connectedness (Boczkowski et al., 2018). Furthermore, blogs as social networking platforms can promote interaction, collaboration, and cooperation among higher education students within a learning context (Ifinedo, 2017).

Additionally, social media is used for educational teaching purposes by instructors and teachers. Based on the research results pertaining to the frequency of social media use through the examination of sociodemographic variables, gender has also been found to have a limited impact on social media use for educational purposes. Concerning the type of social media environments that can be used for educational purposes, it has been argued that YouTube, Facebook, and Twitter are all examples of such utilizable educational tools. Age is another important factor, one that has been found to be more influential than gender among researches examining social media use. To motivate students in learning, Facebook and Twitter have been reported as major educational social media platforms while other tools such as Blog, Wiki, Podcast, YouTube, Vimeo, SlideShare, Research Gate, and Academia.edu are also used to improve the quality of teaching or to share educational content. YouTube and Vimeo have been reported as tools that motivate students, while Facebook has been reported as a tool for sharing content. As 'Digital Natives', students are commonly familiar and motivated regarding the use of social media (Hung & Yuen, 2010).

Social media is used both for information sharing and educational purposes. In a study conducted in Turkey that investigated the use of social media for

educational purposes, it was determined that students used social media for educational purposes and shared information about course contents with one another via social media and instant messaging tools. According to Özen et al. (2016) social media is able to bring distance-learning students closer together through the use of a common language. Özen et al. (2016) also reported that students shared their course contents intensively through social media. Students also stated that they helped one another sharing course content through social media. They also emphasized how they could get help from their mentors and classmates by communicating via social media, and also noted that a consequence of using social media was that it was highly useful concerning their educational practices and schoolwork (Özen et al., 2016).

In 2019, the number of social media users in Turkey was 44 million, more than half of Turkey's total population. Over 28 percent of internet users in Turkey use social media in Turkey, and comprise more than a quarter of all young people under 25 years of age; this number and ratio are both increasing. This remarkably ubiquitous use of social media by young people makes understanding where and how they prefer to use social media in everyday life.

The fact that social media use has increased exponentially in recent years makes understanding points whereby young people's social media behaviors differ importantly. The use of social media is a rapidly changing subject and so it is important that the subject is well understood. Based on the use and popularity of social media in Turkey, the country is among the world's leading countries in social media use. The ability to provide more effective use of social media in education will be important if the way in which university students vary in their use of social media behavior inside school is to be understood.

The aim of this study is to examine how Turkish university students use social media for the inside schoolwork purposes based on the content and activities in which they engage. The research questions are as follows:

1. How do students in higher education use social media for their inside schoolwork purposes for consuming, creating, and sharing content?
2. Is gender a significant factor in students' social media use for educational purposes?
3. Are there relationships between the type of the most frequently used social networking site (SNS) by higher education students and their behaviors of consuming, creating and sharing content?

1 Research method

1.1 Sample

The study data were collected from 365 study participants. All participants were university students attending the School of Communication, Education, Social Sciences, Sport Sciences and Business School of a public university from the Aegean Region located in the southwest of Turkey. Students included freshman,

senior, sophomore, and junior level students of all ages. To collect the study data, participating students answered the online survey via Google Forms during the spring semester of the 2018-2019 academic year. For the first data-collection phase, 806 students answered the survey. These data were then used for first level analysis in the scale adaptation study (Dikbaş Torun, 2019) and were excluded from the descriptive statistics of this study. At the second data collection phase, further analysis was undertaken to utilize the confirmatory factor analysis of the scale; accordingly, an additional 365 students answered the items. The current study used the most recent (second phase) data.

1.2 Data analysis

Principal component, exploratory and confirmatory factor, and descriptive statistics, correlation, and Multivariate analysis of variance (MANOVA) analyses were applied to analyze the social media use of students inside the school. Gender and type of SNS were set as the additional predictors of the consuming, creating and sharing content.

1.3 Research instrumentation

The Inside School Social Media Behaviour Scale (ISSMB) was first developed in English in 2018 by Lu et al. (Lu et al., 2018). The ISSMB was first adapted to Turkish by Dikbaş Torun (2019) and was used to collect the data for the current study. ISSMB comprises 10 items and has three subdimensions: consuming, creating, and sharing.

2 Results and analysis

2.1 Scale adaptation to Turkish

The Turkish version of the scale started as a language validity study. The translation and back translation stages of the Turkish version of the scale were performed by three language experts and three field experts. Language validity, Exploratory Factor (AFA), Confirmatory Factor (CFA), and reliability analyses were then performed. The results of these analyses revealed that the factor loads of scale items were good (above .69) and the total variance explained was high (ISSMB: 67.64%). The internal consistency value was also found to be acceptable for all factors. Accordingly, the Turkish version of the scale is valid and reliable.

2.2 Linguistic adaptation of the ISSMB scale and language validity

Before starting the Turkish adaptation of the scale, the researcher contacted Lu et al. (2018) to get permission for the scale adaptation study. After this permission had been given, the adaptation study started. The language equivalence studies of ISSMB scale was conducted with 40 people, including six experts (faculty members) and 34 students. The translation process of the scale from English to the target language, Turkish, started with translations

undertaken by six field experts. Three of these experts performed the translation process and three performed the reverse translation process. After the translations had been completed, 34 students attending the final year of English Language Teaching completed the English-Turkish form for language equivalence at 10-day intervals. These students were randomly selected from the English Language Teaching and English Language Philology departments of the same state university. All students who were used to complete the English-Turkish form for language equivalence had a cumulative grade point average of 80 out of 100. The results point out that ISSMB scale has the language validity.
The correlation coefficients between Turkish and English scale scores were found to be .85, while the correlations between the two scale scores found to be significant at the .01 level. The item correlation coefficients in the English and Turkish forms of the scales were found to be greater than .30. Based on these findings, it can be said that the Turkish and English forms of the ISSMB scale are equivalent in terms of language.

2.3 ISSMB scale exploratory and confirmatory factor analysis

After obtaining linguistic equivalence, EFA and CFA were performed. EFA criteria were adopted as the normal distribution, linearity, determination of outlier values and subtraction of null values. CFA criteria were the adequacy levels of the goodness of fit indices, while construct validity studies were used to determine validity of the scale. The reliability levels of the scale were determined by calculating the internal consistency coefficient of Cronbach Alpha. SPSS 22 and AMOS 23 were used to carry out all those statistical procedures used in the adaptation studies of the scales. The linguistic equivalence findings of the study indicate a high correlation between the Turkish and English forms.
The EFA and CFA results of the scale showed that the scale was good in predicting the actual measurement. The validity and reliability scale results were both found to be positive. Accordingly, it was concluded that the sub-dimensions of the latent variables were consistent with the original scale. The latent variable sub-dimensions of the ISSMB scale were observed as Consumption, Creation, and Sharing. The items in the ISSMB were therefore able to predict the sub-dimensions.
EFA was performed using the principal component analysis and Varimax rotation technique. Before the EFA calculations, Kaiser-Meyer-Olkin (KMO) and Bartlett's test of sphericity were applied. KMO values can range from 0 to 1; values above .5 are considered acceptable, values between .5 and .7 are considered moderate, values between .7 and .8 are considered good, values between .8 and .9 are considered very good, and values above .9 indicate excellent relational patterns among the items (Hutcheson & Sofroniou, 1999).
KMO value for the ISSMB was calculated as .79, this value is in the .7-.8 range and is therefore considered good. The Bartlett's test of sphericity value of the

scale was calculated as 1387.27 ($p<.001$, SD=45). This result shows that the dataset is appropriate for factorial analysis.

Table 1

Factor loadings and explained variances for ISSMB

Factor		*Factor loadings*	*Total Variance Explained %*
Consuming	Con1	0.90	23.85
	Con2	0.88	
	Con3	0.70	
Creating	Cre1	0.73	22.46
	Cre2	0.76	
	Cre3	0.78	
	Cre4	0.69	
Sharing	Sha1	0.81	21.33
	Sha2	0.72	
	Sha3	0.86	
			Total 67.64

As can be seen in Table 1, the results show that the factor loadings of all items were good, and that the total variance explained was sufficient (ISSMB: 67.64%). The EFA results of the ten-item ISSMB scale revealed that the three-item Consuming sub-dimension of the scale explains 23.85% of the total variance. When the factor loadings of the Consuming sub-dimension are examined, it is seen that the three factor loadings values are .70, .88, and .90. Comparatively, the Creating sub-dimension comprised three items in the original scale; however, it was seen that sub-dimension measured four items after the rotated component analysis was performed in this study. Cre4, the fourth item under the Creating sub-dimension was, in the original form, included under the Sharing sub-dimension. It can be seen that the Cre4 (Discuss schoolwork with classmates or teachers) predicted the Creating dimension rather than the Sharing sub-dimension, and the item was moved accordingly so that it was included under the Creating sub-dimension in the current study.

The total variance explained in the Creating sub-dimension was 22.46%. When the factor loadings of the three-item sub-dimension were examined, it was seen that values range from .69 to .78. The total variance explained by the Sharing sub-dimension was found to be 21.33%.

The cohesion indices obtained from the CFA show that the Turkish form of the ISSMB provides structural validity. The internal consistency values were

acceptable for all factors. The Turkish version of the scale was found to be both valid and reliable (Table 2).

Table 2

CFA Fit Indices

Fit Indices Used	*Perfect Fit Indices*	*Acceptable Fit Indices*	*ISSMB CFA Results*	*References*
x2/ sd	0 ≤ x2/sd ≤ 2	2 ≤ x2/sd ≤ 3	1.97	Hu and Bentler (1999)
GFI	0.95 ≤GFI ≤ 1.00	.90 ≤ GFI ≤ .95	0.96	Jöreskog and Sörbom (1993), Marsch, Balla, and Mcdonald (1988), Schermelleh-Engel and Moosbrugger (2003).
AGFI	.90 ≤ AGFI ≤ 1.00	.85 ≤ AGFI ≤ .90	0.93	
CFI	.95 ≤ CFI ≤ 1.00	.90 ≤ CFI ≤ .95	0.98	Bentler and Bonnett, (1980), Bentler (1980), Marsch, Hau, Artelt, Baumertv, and Peschar, (2006).
NFI	.95 ≤ NFI ≤ 1.00	.90 ≤ NFI ≤ .95	0.96	
NNFI	.97≤NNFI≤1.00	.95 ≤ NNFI ≤ .97	0.98	
RMSEA	.00 ≤ RMSEA ≤ .05	.05 ≤ RMSEA ≤ .08	0.048	Browne and Cudeck (1993), Byrne and Campbell (1999), Hu and Bentler (1999), Schermelleh-Engel, and Moosbrugger (2003).
SRMR	.00 ≤ SRMR ≤ .05	.05 ≤ SRMR ≤ .10	0.05	

ISSMB scale fit index values were calculated as RMSEA=.048, GFI=.96, AGFI=.93, CFI=.98, NFI=.96, NNFI=.98, RMSEA=.48, and SRMR=.05. On examination of the ISSMB scale fit indexes, it was found that all indexes showed perfect fit. ISSMB scale has three latent and 10 observed variables (Figure 1).

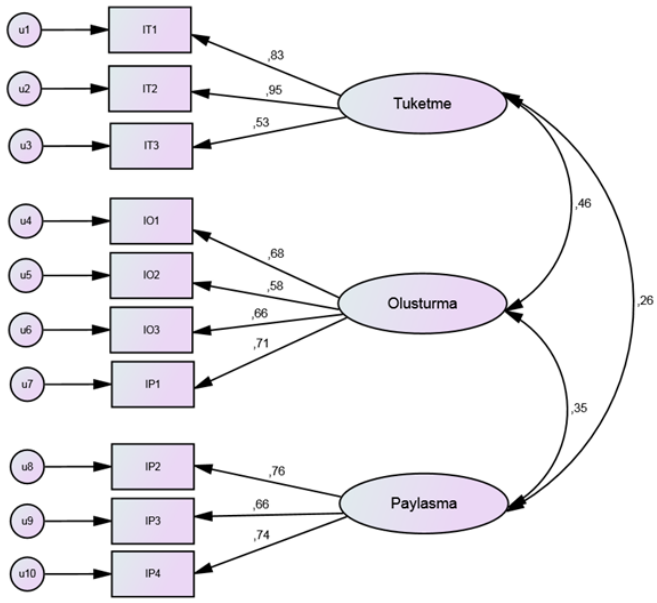

Figure 1. ISSMB adapted Turkish version path diagram: Consuming (Tüketme), Creating (Oluşturma), and Sharing (Paylaşma); IT (Inside school consuming), IO (Inside school creating), IP (Inside school sharing).

On examination of the convergence and differential validity of the ISSMB it was found that the scale values per collected data provided the validity criteria. Accordingly, the scale items can be said to accurately and distinctly measure the relevant structures. Internal consistency (Cronbach's alpha) value was calculated as .79. The internal consistency (Cronbach's alpha) coefficient was found to be above .70, and so the scale was found to be consistent (Table 3).

Table 3

Factors and reliability of the ISSMB scale

Factors	*Items*	*Cronbach's alpha*
Consuming	1,2,3	.80
Creating	4,5,6	.70
Sharing	7,8,9,10	.70
Total	10	.79

2.4 Social media usage inside school

An additional section of the ISSMB scale was used to gather data on the demographics of the students. The demographics of higher education students for gender and the SNSs that they used the most are given in Table 4.

Table 4

Demographics

Items/Demographics	***Variable***	***n***	***f %***
Gender	Female	261	71.50
	Male	164	28.50
Which SNSs do you use the most?	Facebook	29	8
	Instagram	164	45
	YouTube	55	15
	WhatsApp	87	24
	Twitter	26	7
	Other (e.g. LinkedIn)	4	1

Instagram is the most frequently used/preferred SNS, followed by YouTube, Facebook, WhatsApp and Twitter (45%, n=164). This means students who participated in this study used Instagram the most for their educational purposes. They shared stories, created archives, and followed up educational content on different Instagram accounts by following the accounts.

The descriptive analysis of mean and semantic difference results is given in Table 5.

Table 5

Descriptive statistics (Consuming: Con, Creation: Cre, Sharing: Sha, N=365)

Item	***Mean***	***SD***
Con1: Read posts relevant to schoolwork on social networking sites	3.40	1.20
Con2: Search learning resources or information about schoolwork	3.43	1.09
Con3: Watch videos about subject knowledge	3.54	1.17
Cre1: Write articles (e.g., on Wiki)	1.77	1.12
Cre2: Create videos, music, or photographs online	2.12	1.22
Cre3: Design posters, digital art, or graphics	1.94	1.25
Cre4: Discuss schoolwork with classmates or teachers	2.58	1.30

Sha1: Share school-related information with classmates (e.g., exam schedules)	3.40	1.24
Sha2: Share learning resources (e.g., class notes) with classmates	3.36	1.20
Sha3: Share extracurricular learning resources (e.g., reading books/videos) with classmates	2.94	1.36

Table 5 shows the descriptive statistics of consuming, creating, and sharing content on social media according to a sliding scale ranging from 1=Never, to 5=Always. Mean values for the consuming content on social media are the highest when compared mean values for Creating and Sharing (Mean=3.46). Concerning student responses, it was found that Consuming was the most frequent social media usage purpose among the students. After Consuming, Sharing content was found to be the second most frequent educational social media usage purpose among the student respondents (Mean=3.23). Finally, Creating was found to be the least frequent educational purpose for the students (Mean=2.10).

Regarding the results for each item, "watching videos" (Con3) was found to be the most frequently preferred usage form among the inside-schoolwork social media usage purposes. For their educational purposes, students preferred watching videos more than any other social media activity (Mean=3.54). Students "search for the learning resources or information about schoolwork" (Con2) at the mean value of 3.43, which refers to the second frequent social media usage activity.

Students "read posts relevant to schoolwork on social networking sites" (Con1) at the same frequency with which they share school-related information with their classmates (Sha1, Mean=3.40). As can be seen in Table 1, those items that concern the consumption of content comparatively have the highest mean values compared with the other.

Those items that concern creation of content had the lowest mean values among all the scale items. Students reported "writing articles e.g. wiki" (Cre1) as the least frequently used social media activity for a learning purpose (Mean=1.77). It was found that, when using social media platforms for learning, students do not usually prefer learning by writing. "Design and creating digital art or graphics" (Cre3) was the second least frequent social media usage activity for students, with a mean value of 1.94.

Students preferred watching the uploaded ready-to-watch videos instead of creating and uploading their own video content, and Cre2 was found to have a lower mean value (Mean=2.12) than Con3. When the sharing items are compared with the creating content items, students responded more positively to the former. Students share their own information with classmates e.g. exam schedules (Mean=3.40) and class notes (Mean=3.36). Compared with other

sharing content usages, it was found that students less frequently preferred sharing extracurricular learning resources (Mean=2.94).

2.5 Gender difference as a predictor of educational social media usage

To answer the research question 2 of the current study, an Independent Samples t-test was performed. Descriptive statistics for Consuming, Creating, and Sharing behaviors are given in Table 6. All of the mean scores are calculated out of 5. The average Con1 score was 3.52 for females and 3.11 for males. Among Con1, Con2, and Con3 scores, the highest mean was calculated for Con3, and this mean score was observed as being higher for males than for females (3.56 as compared with 5). When the Cre1, Cre2 and Cre3 averages are examined, the students reported the lowest means for the Creating subdimension, all of which were below the average (lower than 2.50). Male students scored better in Creating. Consequently, on examination of the mean scores for the Sharing subdimension, males were again found to have a relatively higher score than the females. Overall, it can be seen that, excepting Con1 and Con2, the male students' mean scores are higher than those for females across all the subdimensions in all variables.

Table 6

Descriptive statistics (Consuming: Con, Creation: Cre, Sharing: Sha, N=365)

Factor	***Gender***	***n***	***Mean***	***SD***	***t***	***p***
Con1	F	261	3.52	1.13	3.01	.003
	M	104	3.11	1.31		
Con2	F	261	3.45	1.05	.42	.679
	M	104	3.39	1.19		
Con3	F	261	3.53	1.17	-.17	.863
	M	104	3.56	1.16		
Cre1	F	261	1.60	.92	-3.77	.000**
	M	104	2.17	1.43		
Cre2	F	261	1.98	1.14	-3.53	.000**
	M	104	2.47	1.35		
Cre3	F	261	1.76	1.13	-4.20	.000**
	M	104	2.40	1.40		
Cre4	F	261	2.53	1.32	-1.30	.196
	M	104	2.72	1.23		
Sha1	F	261	3.34	1.25	-1.66	.097
	M	104	3.58	1.19		
Sha2	F	261	3.21	1.16	-3.96	.000**
	M	104	3.75	1.20		

Sha3	F	261	2.80	1.38	-3.08	.002
	M	104	3.28	1.26		

** Correlation is significant at the .001 level

As can be seen in Table 6, there are significant differences between students' higher education educational content creating and sharing habits according to gender. The independent samples t-tests were associated with statistically significant effects. The differences are significant in Cre1 "Write articles, e.g., on Wiki" [t (365)=-3.77, p<.001], Cre2 "Create videos, music, or photographs online" [t (365)=-3.53, p<.001], Cre3 "Design posters, digital art or graphics" [t (365)=-4.20, p<.001], and Sha2 "Share learning resources e.g., class notes with classmates" [t (365)=-3.96, p<.001]. Thus, male students were associated with undertaking significantly more Creating activities for inside schoolwork social media use compared with female students. Males were also associated with significantly higher Sharing habits than the females concerning the sharing of learning resources e.g., class notes with their classmates by using social media for their inside schoolwork purposes.

2.6 SNSs and gender difference effects

Prior to conducting the MANOVA, Pearson correlations were performed between the variables in order to test the MANOVA assumptions. Additionally, the Box's M value of 700.09 was associated with a p value of .000, which is below the significance level of .005. Accordingly, it can be seen that the covariance matrices between the groups were not equal, Levene's test of equality of error variances were equal for the dependent variables across groups. The MANOVA results are given in Table 7 below.

Table 7

MANOVA results with Pillai's Trace

Effect	***Value***	***F***	***P***	***Partial Eta Squared***
Intercept	.863	218.023	.000	.863
SNSs	.176	1.275	.096	.035
Gender	.116	4.512	.000	.116
SNS*Gender	.033	.287	1.000	.008

MANOVA was conducted to test the effects of gender and SNSs on Consuming, Creating, and Sharing content for the educational use of social media. A statistically significant MANOVA effect was revealed for gender (Pillai's Trace=.116, F (10,345)=4.512, p<.001) indicating a statistically significant difference among the sub-dimensions (Con, Cre, and Sha) of social media use

between males and females. No significant effect was observed regarding the type of SNSs employed for the educational use of social media (Pillai's Trace=.176, F (50,1745)=1.275, p>.001).

To display the effects item by item for each dependent variable, the results of the test of between-subjects' effects are given in Table 8 below.

Consuming subdimension items are Con1, Con2, and Con3; Creating subdimension items are Cre1, Cre2, Cre3, and Cre4; Sharing subdimension items are Sha1, Sha2, and Sha3 respectively.

Table 8

Gender effect on the subscale items of Consuming, Creating, and Sharing Content

Source	***Items (DVs)***	***Type III Sum of Squares***	***df***	***Mean Square***	***F***	***P***	***Partial Eta Squared***
Gender	Con1	3.858	1	3.858	2.696	.102	.008
	Con2	.020	1	.020	.017	.897	.000
	Con3	.005	1	.005	.004	.952	.000
	Cre1	20.581	1	20.581	17.405	.000**	.047
	Cre2	15.933	1	15.933	10.771	.001**	.030
	Cre3	28.503	1	28.503	19.124	.000**	.051
	Cre4	5.901	1	5.901	3.645	.057	.010
	Sha1	2.519	1	2.519	1.656	.199	.005
	Sha2	11.500	1	11.500	8.282	.004	.023
	Sha3	8.045	1	8.045	4.381	.037	.012

** Correlation is significant at the .001 level

The gender effect for Cre1, Cre2, and Cre3 were all found to be statistically significant at the .001 level among the 10 subdimension items. No statistically significant effect of gender on Consuming and Sharing is reported. The main gender effect for Cre1 yielded an F ratio of F(1,364)=17.405, p<.001, indicating a significant difference between males and females. The gender effect for Cre2 was also found to be significant with an F ratio of F(1,364)=10.771, p=.001. The F ratio of Cre3 was F(1,364)=19.124, p<.001.

For the mean scores for SNS Type and Gender for Cre1, Cre2, and Cre3 items are shown in Figures 2, 3, and 4.

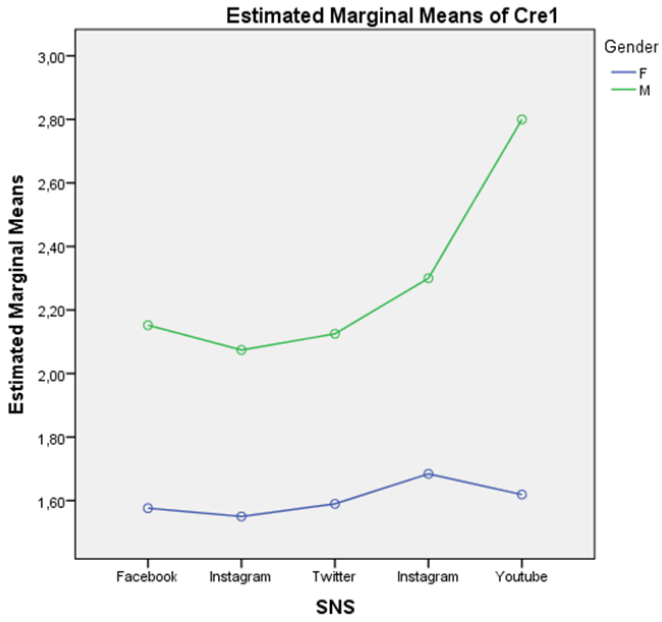

Figure 2. Mean differences by gender in using SNSs for Creating Content on social media (Cre1: "Writing articles").

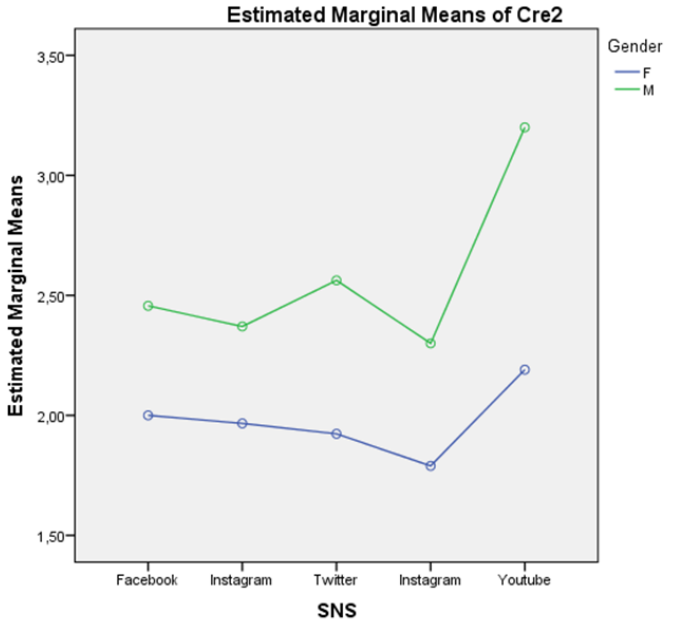

Figure 3. Mean differences by gender in using SNSs for Creating Content on social media (Cre2: "Create videos, music, or photographs online").

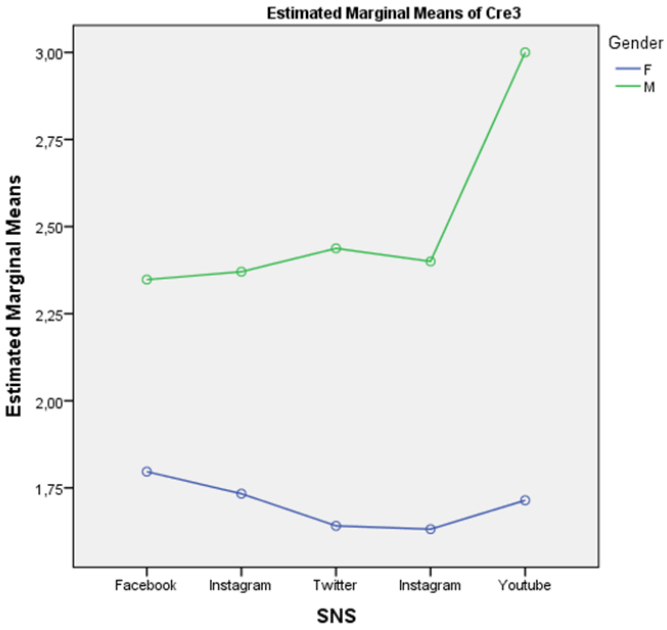

Figure 4. Mean differences by gender in using SNSs for Creating Content on social media (Cre3: "Design posters, digital art, or graphics").

3 Discussion and conclusion

This study examined the social media usage habits of higher-education students for educational purposes inside school in terms of Consuming, Creating, and Sharing of educational content. The first phase of the results showed that the scale developed by Lu et al. (2018), and adapted to Turkish for the first time in the current study, was valid and reliable. The lack of Turkish studies on this subject meant that this adaptation of the scale was important. This study was undertaken with the participation of the university students, instead of secondary school students (as were used in the original study). In future studies, different data sets might be formed using different sample structures. Accordingly, the social media usage behaviors of young people both outside and inside school could therefore be examined across different age groups so to determine age-related differences. The literature on this subject could therefore be improved with new findings and results from different sample groups.

Concerning the responses of students who participated in this study, it was found that consuming is the most frequent social media usage purpose for the students when used in school for educational purposes. Furthermore, it was found that students of a higher education level are more likely to consume 'ready-to-gain' content (educational content which is available on social media) rather than

creating and sharing it themselves. After consuming, sharing content was found to be the second most frequent educational social media usage purpose among the students. Finally, creating was reported as being the least frequent educational purpose among the students.

Concerning the results for each scale item measured in the current study, the most favorable social media usage for educational purposes inside school was found to be "watching videos". Students indicated that they preferred watching videos more than any other social media activity for their educational purposes.

The second most frequently preferred social media usage activity among the students was found to be learning resources or information about schoolwork. Lastly, Creating content was the least favorable social media usage preference among all educational usage aims. Students reported that "writing" content was the least frequent activity undertaken for a learning purpose on social media. Accordingly, it can be said that students do not usually prefer learning by writing when using social media platforms for learning. "Design and creating digital art or graphics" were the second least frequent social media usage activity for the students which meant drawing was also among unfavorable Creating content usage forms of the social media.

Based on these results it can be said that higher education students are social media consumers when using social media for educational purposes. In other words, students prefer being "passive consumer social media users avoiding active content creating" when using social media for educational purposes.

It was found that students prefer to watch uploaded ready-to-watch videos rather than creating and then uploading their own video content. On comparison, the sharing items and creating content items of the current study, it can be seen that students responded more positively to the former Sharing sub-dimension. Accordingly, it can be said that students often share their own information with classmates e.g. exam schedules and lecture notes. Compared with other sharing content usage, students less frequently prefer sharing extracurricular learning resources.

The type of the SNS used by students was not found to influence their educational social media usage, and students are able to consume, create, and share content, regardless of the type of the SNS they use.

Inconsistent with the results of the current study, are the results of another related study in which it is stated that in today's social networking sites, such as Facebook, students' communication perceptions are usually focused on sharing, self-presentation, and idea expression (Su & Chan, 2017). Furthermore, another study reported that Twitter can positively provide students' active engagement in class when used for the educational purposes (Junco, 2012). Active social media and social networking platforms available for educational use in higher education can ensure that students benefit the available hashtags in communicating with their institutions and colleagues (Gismondi & Osteen, 2017).

The gender differences revealed in the current study are predictors of social networking site usage among young people, and it was found that social networking usage changes according to gender. According to a different study, females were found to have a more positive and effective social media usage behavior than males (Dikbaş Torun, 2019b). The results of the current study are inconsistent with this result and show that, when usage purposes are both educational and focused on schoolwork, males' social media usage outperforms that of females. Accordingly, in the current study, males were more likely to create content by using social media for inside schoolwork purposes when compared with females.

Males were also found to be more likely to have sharing habits when compared with females regarding the sharing learning resources (e.g., the sharing of class notes with classmates by using social media for their inside schoolwork purposes). Males also reported greater "giving" within the school setting regarding the sharing of educational content with their colleagues and friends. In their study, Poelhuber and Anderson (2011) indicate positive attitudes toward technology, as well as greater experience with social media among male and younger students.

Finally, social media is a reality of our modern lives, one that is growing exponentially; it is highly crucial that researchers facilitate a better understanding of the ongoing changes and developments that are emerging and transforming learning.

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Developing Undergraduate Students' Teaching Competences

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Abstract:
Introduction: The goal of this paper is to show how the undergraduate students are able to differentiate among learning-centered, learner-centered, feedback-centered and community-centered knowledge acquisitions. We wanted them to recognize which method is used by the teacher and how each method influences the primary school pupils' knowledge acquisition.
Methods: We chose the video analyzing technique to make the students recognize different learning organizational methods.
Results: The results of the study suggest that the observation helped the undergraduate students understand the aims, tasks and techniques of teaching and organizing classroom work. They realized that this type of analysis helps them develop their own teaching strategies.
Discussion: Drawing on the results it is not possible to be a "good teacher" without obtaining and continuously maintaining a high level of professional knowledge, whose important element might be the Complex Instruction method and the recognition of the knowledge acquisition methods in the classroom.
Limitations: This study was limited to only undergraduate students who attended the study voluntarily. The sampling was confined to 46 participants.
Conclusion: The students are able to spot the teacher's activities that support pupils' learning. They recognized the positive impact of generating debate among the pupils on the development of their skills.

Key words: student, competences, complexity, instruction.

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Introduction

While it is important for higher education institutions to familiarize their students[1] with the way they teach, we find that the awareness of novice teachers is unsatisfactory. One of the reasons for this is that they were unable to acquire the appropriate level of practical knowledge alongside theoretical information during their studies.

There are several shortcomings in this regard in the Hungarian higher educational practice, which - for the sake of simplicity - can now be reasoned by the lack of funding. The universities do not have the possibility to fund their students' daily and weekly practical teaching experience beside the theoretical knowledge they gain from their first day of entering the higher educational system. We consider it as an essential condition of building teaching competences, that students are able to immediately experience the theoretical information in practice. The situation is also aggravated by the lack of training institutes that apply various types of methodologies to manage heterogeneous pupil environment in an excellent way. Even if there are such institutes, they are not close to the universities; it is difficult to access them on a daily basis. We also lack a mentoring system that could support the students' preparation to become teachers, both at the university and the training institute's level.

To mitigate the above mentioned - apparently unavoidable - gaps, we need to find the possibilities to develop teaching competencies by applying the educational institutions' already available tools. Our objective is to develop the students' teaching competencies through recognizing learner-centered, learning-centered, feedback-centered and community-centered knowledge acquisition methods. We start presenting our thoughts by reviewing the literature related to the subject. This will be followed by showing the results of the examination conducted among the students, and the opportunity of developing teaching competencies through the practical application of the theoretical knowledge.

1 The impact of the teacher's knowledge on the pupils' performance

Goldhaber and Brewer (2000) found that pupils' performance show a significant correlation with the teachers' readiness and competencies. Although the results may be linked to the students' successful knowledge acquisition, they do not give an accurate feedback to define the format- and content related elements of teacher training. Therefore, they believe that it is important to determine the purpose of the coaching; furthermore, what knowledge we want the pupils to acquire. It is getting more and more important how the knowledge transfer and acquisition takes place.

[1] Concepts: Student = an undergraduate person at university; Pupil = a primary school child

The teaching methods, techniques and their efficiency in the classroom are significantly impacted by the teacher's competence (see also Geršicová & Barnová, 2018). Perkes (1967) examined as early as 1960's, how the teachers' preparedness affects the successfulness of the pupils. He found that those teachers, who were able to improve their practical knowledge during their studies, applied various teaching techniques already at the beginning of their careers more often and more easily than those, who had less such opportunities in the educational institution. This latter group of teachers continued focusing on getting the pupils to memorize the material.

Wenglinsky's (2002) test results show that those schools performed better at the national competence testing (National Assessment of Educational Progress - NAEP), where teachers were prepared to work in a heterogeneous classroom and compile tasks that require multiple intelligence skills. According to him, the teachers who have acquired theoretical and practical knowledge during their teacher training will be the most successful in their work.

The research conducted by the U.S. National Research Council (2000) is crucial for our work, according to which the effective teacher is able to balance the pupils' abilities, interests, knowledge, skills and gives continuous feedback to them. The study differentiates among learner-centered, learning-centered, feedback-centered and community-centered knowledge acquisition.

Teachers who focus on learner-centered methods build on the students 'existing knowledge while looking for answers on how and why they are learning and taking into account students' abilities, knowledge and interests.

Learning-centered teachers focus on what they teach and why they teach. They consider it important to answer what knowledge they want to transfer, why this information is important, and how they can plan and execute knowledge transfer. They support students in presenting the problem at a high level and are encouraged to enrich their presentation with ideas.

The feedback-centered method focuses not only on feedback, but supports the children's development through analysis, emphasizing what efficient learning means. The teacher applies formative feedback rather than summative one, which helps the pupils to develop their multiple abilities.

The community-based learning is influenced and supported by the standards and patterns in the group, where students use each other as an information source. The teacher relies on the already existing knowledge of the group to a high extent, and considers the class, the school and the environment's effects on performance. It motivates pupils when they realize that they will need the knowledge they acquire, when this knowledge meets their interests; the task is challenging; they receive performance feedback and when they feel that they are members of an active learning community. The real challenge for the teachers is to find balance among the above knowledge acquisition methods to reach these goals.

Zumwalt (1989) believes that it is essential to clarify the entrant teachers' primary goal and their role in the knowledge transfer as a teacher. His ideas start from the finding that it is easier to determine what pupils need to know and what kind of performance they should demonstrate, than how these goals can be achieved. The teacher should be proficient in knowledge transfer, all tailored to the individual needs of the pupils. The daily work might appear ad-hoc in nature, instead of exact plans and conscious activities, where the teacher aims to extend the pupils' knowledge step by step. In accordance with the set objectives, the teacher must understand the knowledge acquisition methods and the tools chosen to assist teaching. The goal of the lesson should not be simply delivering the information stored in the book. The pupils should formulate their innovative thoughts and actively participate in the process of knowledge acquisition. Peterson and Clark (1978) raised their concerns of teachers sometimes paying more attention to teaching their lessons according to the pre-designed way, than the knowledge the pupils acquired on the lesson.

According Merseth and Koppich (2000), students need to improve their skills during the preparation for their seminars, that they can compile tasks that that meet the requirements of student development. They need to know what attracts the pupils in the task, but their attention also needs to be raised to what holds pupils back from active participation in it. They should keep in mind to what extent a task stimulates the pupils' thinking, what new teaching strategies promote successful knowledge acquisition, and what make the students rethink their teaching strategies.

The teacher has to think over the execution of the tasks during preparation, and assess the possible barriers and the required tools for the solution of the task. Only those tasks that build on the pupils' already existing competencies, experiences and knowledge should be selected. It is worthwhile to apply different teaching techniques to raise attention and motivate. Various tools should be used to enrich the lesson, considering the pupils' needs (Hammerness et al., 2002).

2 Research

Besides linking theoretical and practical experience, an important goal of teacher training is to prepare future teachers for consciously starting their teaching career and accommodating to changing educational needs and knowledge acquisition requirements. Accordingly, our research aims to investigate how the students' teaching competencies can be developed through applying the Complex Instruction method in practice. The method focuses on teaching heterogeneous pupil groups (K. Nagy, 2012, 2015).

Our goal was to teach students how to recognize and analyze different knowledge acquisition techniques and how to construct their lesson based on this knowledge. They learnt which methods make their work more successful and how to use these different methods. We looked for an answer to the question

whether these attitudes and processes have an impact on the pupils' knowledge acquisition.
We chose a video analyzing technique[2] to make the students recognize different learning organizational methods. The primary goal of the examination was to identify how the analysis of the video supports the understanding of organizing classroom work and developing the tasks.
The study was conducted in case of full-time students of the Eszterházy Károly University (Hungarian language and literature, English language, History).

Table 1

Number of students involved in video analysis

Institute	*Year*	*Students*	*Full-time students/n*
Eszterházy Károly University	2018	Full-time students	22
	2019		24
All			46

2.1 Recognizing the knowledge acquisition methods applied in the classroom
We wanted to teach the students how to build up their lessons and what techniques they should use to increase success during class-work, through recognizing and analyzing different knowledge acquisition methods. We were looking for an answer to the question whether the participants in the examination understand and are able to differentiate among the ways of acquiring knowledge. Examining this has become important for us because we assumed that those who consciously adapt the different knowledge acquisition methods will more possibly apply them during their pedagogical career.
Accordingly, we asked 46 students to differentiate between learning-centered, learner-centered, feedback-centered, and community-centered knowledge acquisition methods in their video analysis. They had to pay attention to which identifiable technique is used by the teacher during class-work. We also wanted to know how these methods influence the pupils' knowledge acquisition. The students' task was to make short notes and jot down short parts of the pupils' conversations. The essence of this task lied in giving us feedback about whether the students recognize and understand the different knowledge acquisition methods and the importance of applying them.

[2] The video was created by the Stanford University and dubbed by the civil organization Foundation for Human Rights and Educating Peace. The Hungarian recordings were made in the Hejőkeresztúr primary school which has been applying the Program for over ten years: 3rd grade mathematics class, 5th grade Hungarian literature class, 7th grade biology class.

After having watched the videos, the students had to discuss and analyze what they had seen. Based on a pre-specified criteria list (Appendix) we wanted to know if the observers understood how the teacher offered the new knowledge through the Complex Instruction method, and how well it was understood by the pupils. How well did the teacher catch the pupils' attention? How did she motivate their performance? To what extend did she rely on the pupils' already existing knowledge, experience and ideas? How did the teacher encourage cooperation among the pupils within the group and at the whole class level? How did she evaluate and analyze the pupils' answers and classroom work? The observers also had to answer how the teacher built up the lesson and how she organized the process of knowledge acquisition.
The purpose of this exercise was that the observation helped the students understand the goals, tasks and techniques of teaching and the organization of the classroom. We wanted to raise the students' awareness that the answers given to the observation criteria help them develop their own teaching strategies and learn how to teach. The significance of the task lies in the fact whether students recognize that the different knowledge acquisition techniques have a knowledge developing role and this way they would more likely apply them during teaching in the future.

2.1.1 Analysis of the results

- The students' typical responses to the question what learning-centered teaching methods were used by the teacher to increase the pupils' knowledge acquisition (Table 2).

Table 2

The students' typical responses to the question what learning-centered teaching methods were used by the teacher to increase the pupils' knowledge acquisition

The teacher delivers new knowledge.
The teacher discusses new knowledge with the pupils. She asks and waits for a response.
The teacher stimulates the pupils to search for multiple solutions.
The teacher generates a debate among the pupils through open-ended sentences.
The teacher analyzes the upcoming problem or new knowledge.
The teacher discusses the steps of solving the task with the pupils.
The teacher uses and provides tools and applications to the pupils in order to assist learning.
The pupils use tools.
The teacher performs experiments to help acquire theoretical knowledge.

Most of the students were able to recognize those teacher activities that increased the pupils' knowledge. Due to the preliminary delivered theoretical

knowledge, the students recognized the positive effect of the debate generated among the pupils on the development of communication skills. They agreed that the more the children discuss and debate about the curriculum, the more they learn. They also concluded that generating debate can be achieved through open-ended tasks which are typical of the Complex Instruction method.
They noticed that the teacher's proficiency in composing open-ended tasks contributes to the cooperation of the pupils within the heterogeneous group and acquiring knowledge. They understood that the teacher is responsible for being able to compose such tasks.

- The students' typical answers to the question of what learner-centered methods the teacher uses to increase the pupils' knowledge acquisition (Table 3).

Table 3

The students' typical answers to the question of what learner-centered methods the teacher uses to increase the pupils' knowledge acquisition

The teacher calls the pupils on their names.
The teacher raises the pupils' attention with a sort, interesting icebreaker in the beginning of the class.
The teacher distributes personal task to the pupils.
The teacher distributes differentiated tasks to the pupils.
The teacher praises the pupils.

The students had no difficulties in recognizing what learner-centered methods are used by the teacher; however, they chose some answers that are specific of the community-centered method. The reason for this might be that it was difficult to distinguish whether the teacher put an emphasis on the individual or the community; the knowledge of the individual or the cooperation within the group and its joint output. We were pleased that all students mentioned positive feedback and praising of the pupils, which, according to the method, is an activity that increases the status of the low-status children. If a pupil is able to catch up with the others, they will be pleased to work with him/her, they will communicate more intensively and get closer to mastering the required skills.

- The students' typical answers to what feedback-centered methods were used by the teacher in order to improve the pupils' knowledge acquisition (Table 4).

Table 4

The students' typical answers to what feedback-centered methods were used by the teacher in order to improve the pupils' knowledge acquisition

The teacher gives feedback to the pupils.
The teacher gives feedback to the groups.
The teacher praises the pupil.
The teacher praises the group.
The teacher praises the whole class.
The teacher gives analytical feedback to the individual performances.

The students noticed the teacher's evaluating activities towards the pupils' performance, however - either due to some deficiencies of the questionnaire or in the preparation work - they did not answer the why and the when out of the why-what-when-how questions. We expected that status treatment, an important element of the Complex Instruction method would be found among the answers, suggesting that it stimulates cooperation within the group and individual development. The answers did not refer to when i.e. at what stage of the lesson the teacher evaluates the pupils' performance either. It would have been desirable if the students had referred to the feedback during the class and at the end of the lesson, and also how the teacher evaluates the pupils' work, whether she positively reacts on the pupils' performance during class-work. We expected that if they see and understand the importance of praising to motivate students, they will most likely use it during their classes, which will facilitate knowledge acquisition.

It is however satisfactory that during the oral analysis of the questionnaire, the students knew that feedback is effective when it is tailor-made for the individuals. The answers mentioned the fact that the children's class performance needs to be related to their own average performance; hence the feedback has to be personal.

- The students' typical answers to what sort of community-centered techniques the teacher uses to improve the pupils' knowledge acquisition (Table 5).

Table 5

The students' typical answers to what sort of community-centered techniques the teacher uses to improve the pupils' knowledge acquisition

The teacher stimulates cooperation among the pupils through the tasks.
The pupils present the joint work of the group to the class.
The teacher repeats to the group that they can perform better together than individually.

The students assumed well that the teacher was able to encourage the pupils to cooperate both orally and in writing. While in writing she sent the message through the task, orally she often emphasized that the group had a greater chance to solve the task together than if the pupils had worked individually. The stimulating effect of the group tasks lies in the fact that none of the pupils (even the most talented one) is able to solve the problem individually. Successful completion of this task requires the participation of all members of the group. This teaches the group members to consider each other's opinion and take joint decisions in order to reach a quick and successful solution and become an active part of the outcome. Debate is an important part of the development of communication skill, it enforcements the principle that the more the pupils speak, the more they learn.

2.2 Assessment of the pupils' skills

The students were also asked to try to determine the pupils' skills needed for knowledge acquisition, based on their classroom performance. We wanted to know whether it was visible for them, how much the teachers contributed to strengthen the cooperation among the pupils by providing some of them with tasks that required more, and some that required less competencies. We looked for the answer whether they thought that the teachers sometimes allowed more space for the good performers to act during class, than to those with a weaker performance.

The students' responses revealed that based on the videos, they did not think that there were pupils who had all skills to solve the tasks. This suggests that during their pedagogic careers, they would strive to compile a lesson plan that allows all pupils to actively contribute the task, even if they have different skills and are talented at different fields. The students even realized that during the group-work, not all of the pupils had all required skills to solve the task successfully.

We asked the students whether they thought it was true that everyone was talented at something. Only 61% of them agreed with this claim which certainly does not mean that they considered every pupil having extraordinary skills. 39% believed that there were pupils who – regarding their skills – were not talented at anything. This made us conclude that the students thought that there were pupils who could not contribute to the successful solution of the task in any ways. It is an important feedback for this research that future teachers – even before having started their career – and already practicing teachers think, that they have to count with pupils that are not capable of solving the tasks at a satisfying level (Figure 1).

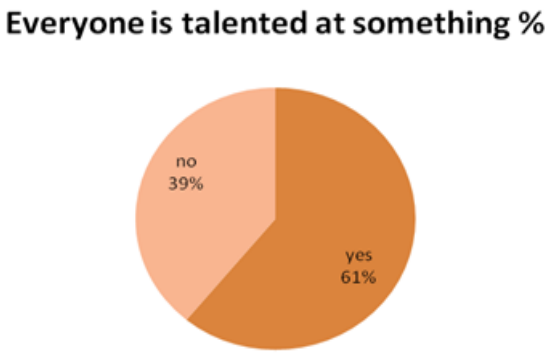

Figure 1. The students' response rate related to the claim "everyone is talented at something."

A low number (29%) of the students believed that some pupils had all intellectual skills to solve the task (Figure 2). This answer rate only lets us conclude at this stage that the students did not have excessive prejudices regarding the pupils' skills that would have influenced them while creating the lesson plan.

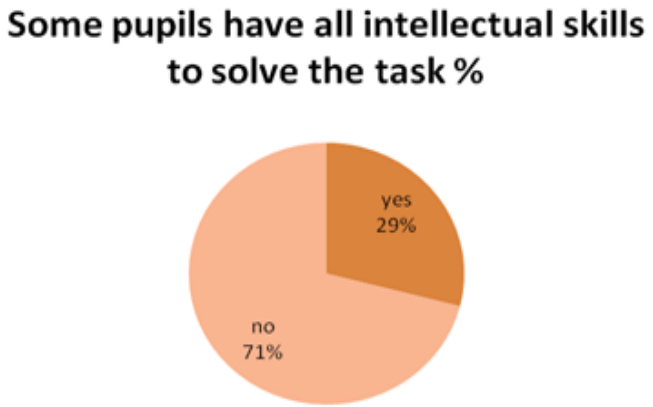

Figure 2. The students' response rate related to the claim "some pupils have all intellectual skills to solve the task."

The purpose of the above observation was to direct the students' attention towards the important principle that every pupil had a skill that he could use to successfully solve the group-task, and that should be considered by the teacher when building the group and compiling the group work.
From our research's perspective, the students noticed further important elements during the analysis of the lesson which will be summarized below.

2.3 Delivering new knowledge during class

After having learnt the Complex Instruction method during the seminar sessions, the students felt the cooperative techniques can be used most successfully when summarizing the curriculum; and the easiest way to organize these classes is to use this framework. However, while analyzing the video, it became clear that the method was just as well suitable for acquiring new knowledge, as reinforcing information or summarizing the material. Nevertheless, they saw it clearly, that the Complex Instruction method was not suitable for acquiring all types of materials. They mentioned an example from mathematics, where the teacher's help was needed to demonstrate how to measure angles. They had the same opinion about the subjects of multiplying or dividing a fraction by fraction, when it was new information for the children.

The students correctly noticed that the source of information was not the teacher, but the fellow pupils in case of this special cooperative method. Transferring knowledge can be interpreted in two ways. The under-performing pupils with weaker skills receive information and support from their more talented or more knowledgeable peers an activity is guided by certain rules. Anyone can ask for help, and the peers are required to provide help in a way that they do not solve the individual task of the person. The pupil in need of help must be guided towards the solution of the task. More knowledgeable pupils do not receive help from the group to expand their lexical knowledge; however, they often face the fact that their peers are located above them in terms of practical skills and technical knowledge. Since even the most talented pupils cannot solve the open-ended task compiled by the teacher based on the Complex Instruction method, they realize that they need their peers' support. In order to receive assistance, they must know who can help them in what, who is good at what.

2.4 Availability of new information

The students first met one of the characteristics of the Complex Instruction method, namely that when the pupils do not understand the group-task or differentiated personalized task, only the facilitator can ask for help from the teacher. His role is to convey the questions related to the open-ended group-task or any group-member's differentiated individual task to the teacher.

The students had difficulties in realizing the development possibility in this rule; that is that this pupil, while turning to the teacher with questions, can improve his thinking, focus and communication skills. The pupils' roles, including the facilitator's role rotates every lesson - including higher and lower performers –, which results in all pupils acquiring proficiency in formulating and articulating the problem, while he discusses the curriculum and acquires knowledge.

2.5 Motivating the pupils and keeping their attention

Teachers' most common complaint today is that children are undisciplined and they are not interested in learning. As an important aspect of the video analysis,

the students had to observe how the teacher achieves that the pupils are motivated and disciplined during the Complex Instruction class. The effect of the teacher's positive reinforcement is stronger than it is believed by the teachers. The children love to perform well and the meet teacher's request and expectations. However, to achieve it, the tasks need to be properly motivating and interesting to help students think, discuss and debate about them.

The students did not receive the lesson plan; hence they could not completely determine what group-task the pupils received. What they could see though was how the children behaved after having read the instructions. They saw that the short time given for the solution of the group-task forced them to work quickly, every pupil tried to take part in the solution. Based on what the students saw, it was concluded that the motivation to work is achieved through the tasks which need to be compiled in a way that they raise all pupils' attention and encourage them to contribute to the successful solution.

It was also found that the teacher's continuous, conscious and tendentious work results in the pupils' organized, sometimes automatic, practiced actions. The students felt that it took time and a lot of attention for the teacher to gradually evolve these behaviors. After having watched the video, their question was how they would acquire all this practice as future teachers during their training.

One of the key principles of the Complex Instruction method is the compilation of open-ended tasks that facilitate debate among the pupils. The teacher aims to generate debate, through the tasks. The pupils are encouraged to exchange ideas and start a discussion about the curriculum which results in reaching agreement in solving the tasks. The teacher has to be aware of open-ended tasks that offer multiple solutions and require complex skills; result in strengthening the interdependence among the pupils. This interdependence requires a lot of attention from the pupils in their cooperation and joint decisions. In a group where the group-members are dependent on each other, there is a more intense need for interaction and this interaction is even more required due to the complex and unfamiliar tasks. The purpose of the group-work is to maintain and strengthen the appropriate level of the interdependence. The more opportunities the pupils have to solve the group-tasks without the teacher's involvement, the easier it will be to cooperation, jointly think and develop communication skills.

During the analysis, the students entered the dilemma of what the teacher's correct reaction is, when she realizes that the pupils are in the wrong direction in the problem solving. There was a dispute among the students about whether the teacher should raise the pupils' attention that they are on the wrong way to solve the task. At the end of the discussion, the students concluded that it has an educating affect when the pupils face the fact that they did not think over the problem properly. It is useful when they realize that they did not use their existing knowledge, hence the failure of their solution is the consequence of not carefully planned group-work. So they considered the lack of the teacher's intervention as a positive act.

There were students, who considered the more violent pupils, the fuglemen within the pupil group, who endangered the successful resolution of the task with their incorrect ideas.
The students were able to articulate one of the important significances of catching attention, i.e. when a pupil does not join to the task from the beginning and it does not catch his attention, the teacher loses him for the rest of the lesson. An exciting conversation was started among them about what sort of task is able to get the brightest and the under-performing pupils to cooperate in a heterogeneous classroom.

2.6 Building on the pupils' already existing knowledge

The Complex Instruction method addresses heterogeneous pupil groups. Heterogeneity can be interpreted in many ways, and from these we were focusing on the diversity of the children's knowledge.
In a heterogeneous group - with regards to the pupils' knowledge –, the best performers work together with under-performers and children with weaker skills. The teacher has to compile tasks that are able to reach all children at all knowledge levels at the same time. In order to be able to achieve this, the teacher has to be aware of the pupils' status based on Bloom's taxonomy and Gardner's intelligence. She has to know at what knowledge level the students stand and she needs to know their field of interest, which is the basis of motivating and building on the pupils' already existing knowledge. She has to be aware which pupil is good at what, what they like, what they are interested in, which helps her compile the appropriate tasks. The levels of Bloom are built on top of each other, they are prerequisites for each other, and no step should be missed or skipped. The pupils' level of knowledge consists of these levels that follow each other, are built on each other and are organized in a hierarchical order, which has to be considered by the teacher when designing the tasks.
As the students had only superficial knowledge of Bloom's taxonomy and Gardner's intelligence theory, we found it important to demonstrate the integration matrix that links these two theories and how to apply this knowledge.
The measurements show that the developer teacher students were the most successful in the acquisition of applying the integration matrix in learning. This result is not surprising, since the primary objective of developing teachers is individual differentiation and personalized knowledge acquisition; hence they are required to compile the appropriate tasks that meet the pupils' level of knowledge and interest.[3] It also became clear that out of the elements of the

[3] A letter from a student:
Dear Teacher,
At the moment I don't teach, but I asked for permission to observe the developer teacher in a school 2 days per week. She handed over her teaching responsibilities in the 4th grade, so I had the chance to try our talent development and development itself as well. I

complex lesson, the developer teachers put a greater emphasis on personal differentiation than on group-work.

2.7 Feedback, recognition, praising

One of the characteristics of the Complex Instruction method is that it emphasizes the importance of positive feedback which encourages the pupils to go the extra mile and perform better. It was clear from the videos that the teacher had to take all opportunities to praise the pupils. The students saw that the teacher highlighted the work of the pupils who performed the roles (facilitator, timer etc.) well. They noticed that the teacher praised the individuals spectacularly while they were solving the task. These are indeed the characteristics of the Complex Instruction method. It was however not visible for the students that the teacher had prepared for this activity and she wrote notes even during the class in order to be able to praise the individuals in the end of the class, by this increasing their status.

Three of the four videos ended with evaluating the lessons. Watching the recordings provided the students with important information about how a lesson should be ended. It became obvious that positive feedback is an essential element of the method and that a joint praising to the whole group is not as effective as personalized recognition. The students appeared uncertain about how to find a balance between praising the talented, "good" pupils and the weaker ones who fall behind in learning. Their concerns were formulated in the fact that a talented, high performer pupil can easier and more often be praised than a lower performer. It has become clear to them that it requires great proficiency and competence to compile tasks which allows the teacher to give positive feedback, and this way address both the lower performers and the more talented pupils of the heterogeneous classroom.

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really liked what we learnt at your seminar and I thought I had to try them, too. I tried a few elements of the method in a development group of 7, in a Hungarian grammar class. I differentiated during the whole class; the children worked in groups and in pairs and then everyone got their individual task. The children loved it, everyone experienced success, they worked a lot and didn't even realize that it was the 5th lesson that day.

The developer teacher thanked me for the lesson and next day she called me that she had been thinking about it all night. She said that everyone worked very hard and how much the children could develop this way. She asked for further information and said that she became motivated again and thought that teaching would be the most beneficial and effective this way.

What makes me sad is that my own children don't have the chance to learn this way, they receive the stuffy, rigid frontal-teaching every day…

Conclusions

Knowing different methods of acquiring knowledge is essential for strengthening teacher competencies. Through the video analysis, our goal was to achieve that the students are able to differentiate among learning-centered, learner-centered, feedback-centered and community-centered knowledge acquisition. We wanted them to insightfully recognize which method is used by the teacher and how this method influences the pupils' knowledge acquisition. The importance of this task was that it gave us feedback whether the students recognize and understand various knowledge acquisition methods and the significance of their application.

The students understood how the teacher offered new knowledge through the application of the Complex Instruction method and how comprehensible this knowledge was for the pupils. They understood how the teacher caught the pupils' attention, how she motivated their performance and how she relied on the pupils' already existing knowledge and experience. They saw how the teacher stimulated cooperation within the group and in the whole class and how she evaluated and analyzed the pupils' classroom work.

The results of the study suggest that the observation helped the students understand the aims, tasks and techniques of teaching and organizing classroom work. They realized that this type of analysis helps them to develop their own teaching strategies and learning how to teach.

We conclude that the students were able to spot the teacher's activities that support the pupils' learning. They also recognized the positive impact of generating debate among the pupils on the development of their communication skills. They understood the teacher's responsibility of being competent at compiling the tasks. The students had no difficulty in recognizing the teacher-centered methods and the evaluating techniques regarding the pupils' performance. They understood that feedback is only motivating and effective in case it is personalized. They learnt that the teacher can stimulate cooperation both verbally and in writing.

They saw that group-work influenced the improvement of the pupils' performance. The students understood and were able to analyze the structure of the lesson and its rhythm. They saw that every lesson showed in the videos consisted of the same units, providing the flow of the lesson with a definite frame. We assumed and proved that through the analysis of the videos, the students in could distinguish among learner-centered, learning-centered, feedback-centered and community-centered knowledge acquisitions. We conclude that students understood that the balanced application of these methods has a positive impact on the pupils' knowledge acquisition.

During teacher training the students learn how teachers should teach. It is not possible to be a "good teacher" without obtaining and continuously maintaining a high level of professional knowledge, whose important element might be the

Complex Instruction method and the recognition of the knowledge acquisition methods in the classroom.

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Appendix

Questioner: *Observation criteria for a Complex Instruction lesson*

How does the teacher deliver the new knowledge? …… To what extent do you think the new knowledge is comprehensible for the pupils? …… How does the teacher raise the pupils' attention? …… To what extent does the new knowledge motivate the pupils? …… To what extent does the teacher rely on the pupils' already existing knowledge, experience and ideas? …… How does the teacher drive cooperation within the group and the whole class? …… How does the teacher evaluate and analyze the pupils' work? …… How does the teacher build up the lesson, how do they organize the flow of acquiring knowledge? ……

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ARTICLES

Legal Framework for the Training of Health Care Specialists in the Health Care System of Lithuania to Work with the Disabled

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Abstract:
Introduction: Health care is one of the most important fields not only in individual countries, but globally as well, yet it remains one of the most sensitive topics, too. Global organisations have calculated that one out of seven residents around the world has some sort of disability. It is very likely that due to various processes, the number of people with disabilities will increase. Therefore, the world in general and each country in particular, Lithuania included, faces a great challenge: to ensure suitable and high-quality accessibility to health care services for the disabled. Each country must have clear political guidelines and strategies how to ensure training of health care specialists qualified and able to carry out their tasks when working with the disabled. Therefore, this article analyses global trends of training specialists to work with the disabled and legal basis of such specialist training in Lithuania.
Methods: This article features analysis of scientific literary sources and legal documents.
Results: International and national Lithuanian documents have clearly established that people with disabilities have equal rights to health care services like the rest of the population without any reservations, so this norm must be established adhering to the principles of accessibility, suitability and universality, and which basically should be ensured by health care specialists. However, document analysis has revealed that documents governing the training of health care specialists in Lithuania and processes related to it pay little attention to the training of future health care specialists to work with the disabled, while descriptions of some specific areas of studies, e.g. dentistry, pharmacy, etc. designed to train health care specialists do no address the work with the disabled at all.
Discussion and conclusions: Analysis has revealed that institutions of higher education in Lithuania that train health care specialists are not

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legally entitled to, other requirements aside, to focus the study process on the work with the disabled. Therefore, it begs the question whether such specialists are actually ready to implement the requirements guiding the provision of health care services and ensure top-quality and proper provision of services to all members of the society, irrespective of their special needs, disabilities, etc. Therefore, this article can serve as a basis for further research related to the training of health care specialists to work with the disabled in order to identify what practice is applied in this area in other countries, as well as to ensure it internationally, what are the options and means required to implement it and how to improve the training of health care specialists as much as possible to work with the disabled ensuring the quality of health care in particular and their life in general.

Key words: specialist training, disability awareness training, the disabled, disabled persons, health care professionals.

Introduction

Healthcare is one of the key priorities of a developed society. Various indicators related to the health of people in a certain country reveal its progress in various areas, its current situation and its position among other countries, yet it also shows in which areas improvements should be made. Priority of every developed or developing modern country is (or at least should be) in the assurance of the most effective health care not only for the healthy members of the society, but for the disabled as well, since because of their health problems, they are at risk to remain at the margins of the full-fledged social life.

According to the World Health Organization's (2015) "WHO Global Disability Action Plan 2014-2021: Better Health for All People with Disability", disability is universal, because no one is protected against it, and most of us have disabled people in our midst. The World Health Organisation (2015) claims that disability is not simply a social or biological phenomenon; it is a general problem of the public health, an issue of human rights and development priority.

According to the data by the World Health Organisation (2015), there are over 1000 million people with disabilities – around 15 per cent (or one in seven) of all the people in the world, out of which 93 million children (or one out of twenty people under 15) live with moderate or severe disability. According to the communication by the European Commission (2015), around 80 million of people with disabilities cannot be fully involved into the public and economic activities and due to limited opportunities of employment, the poverty level of people with disabilities is even 70 per cent higher than the average. The World Health Organisation agrees that in the future, the number of people with disabilities can only increase due to the ageing society, rise in chronic diseases, and advanced health care which results in lower mortality of people. Because of

this, disability is not only a problem and responsibility of the disabled persons themselves, but the entire society as well.

With Lithuania in mind, and according to the data by the Ministry of Social Security and Labour of the Republic of Lithuania (2018), at the end of 2017, 242,000 people received disability pensions in Lithuania (around 47 per cent males and 53 per cent females, 8.5 per cent of all residents of the country), while the number of the disabled children is around 14800 thousand (2.9 per cent of all children in the country). This means that a considerable number of people in our country have some disability that not only limits their ability to work, but also in certain cases, requires specific health care.

A statement of the United Nations (n. d.) claims that the disabled seeking health care services experience serious obstacles: physically inaccessible medical clinics and hospitals; lack of suitable transport to get to the doctor and the hospital, negative attitude of health care providers, etc. However, one of the obstacles named is insufficient preparation of the staff to work with the disabled. According to Santoroa et al. (2017), even though there have been lengthy discussions in the health care system about the need to remove the obstacles faced by the disabled, medical professionals are often still not properly trained to work with the disabled and their training is insufficient to achieve it. This problem has been recently approached in scientific research as well.

There was a study carried out in Greece in 2014-2016, with participants studying nursing, social work and medicine (Kritsotakis et al., 2017). According to Kritsotakis et al. (2017) this research has revealed that in general, the attitude of health and social care students towards the disabled in Greece is a negative one. Kritsotakis et al. (2017) claims that adhering to their unfavourable opinion, health care specialists spend less time communicating with the disabled and do not ensure the quality of nursing services. Sarmiento et al. (2016) analysed study programmes in American schools training health care specialists. Most of the schools do not have programmes addressing the work with the disabled, except several cases, when disability is perceived as a disorder or deficiency that must be treated, removed or at least reduced. It is not acceptable, because, according to Sarmiento et al. (2016), not in all cases the disability of a patient must be "treated" and patients not always perceive themselves as "disabled" (e.g. the deaf which usually see their deafness as simply "different skills".) Therefore, speaking about disability as a subject to be taught, we need to understand that in the programmes designed to train health professionals, disability should not be understood as a reason to treat a patient that requires medical knowledge, but in frequent cases, it should be treated as certain circumstances, requiring specific communication and social skills.

Research by Miller (2015), Sarmiento et al. (2016), Kirshblum et al. (2020) focused on improving study programmes designed to train health care specialists, supplementing them with the subjects about disability and work with the disabled shows that gaining such knowledge during the study period has had

a positive effect on the students' perception and attitudes towards the disabled, working with them, preparation and ability to solve problems arising from the work with the disabled.

According to Rogers et al. (2016), Kritsotakis et al. (2017) and Kirshblum et al. (2020), irrespective of the fact that the quality of health care provided to the disabled people directly depends on the attitude of the health care specialists towards the disabled people as well, still only a very small number of medical schools teach about disabilities. Therefore, it is very important to improve the training of health care specialists, including subjects related to the disabled into the study programmes. However, in order to achieve results improving the preparation of health care specialists to work with the disabled, it is very important to develop a proper legal basis.

1 Legal presumptions for specialist training to work with the disabled

According to the World Health Organization's (2015) "WHO Global Disability Action Plan 2014-2021: Better Health for All People with Disability", it is stated that disability encompasses all sectors and various stakeholders; therefore, to carry out actions necessary to implement the plan, it takes strong commitment of everyone, ensuring proper resources, and even though the main role belongs to the national and regional bodies, in order to ensure effectiveness, international organisations should also be involved (the United Nations), as well as disabled people's organizations, academic institutions, the private sector and communities, as well as global networks.

As regards international documents regulating integration of the disabled, aid to them and ensuring their rights, usually the most important provisions are outlined, the situation of the disabled is defined, and certain tasks are delegated to the countries in order to ensure the rights of the disabled on the national level. One of the key documents establishing the rights of the disabled is "The Convention on the Rights of Persons with Disabilities" (2006), Article 25 of which "Health" specifies in detail that countries that have ratified the convention shall take all appropriate measures to ensure access for persons with disabilities to health services without discrimination on the basis of disability. Moreover, "The Convention on the Rights of Persons with Disabilities" (2006) states that health care specialists must provide persons with disabilities with the same quality of health care as provided to other persons. It means that health care specialists should be able to work with the disabled properly in order to ensure the quality of the services provided, thus they must be properly trained to meet this requirement.

The World report on disability, written jointly by WHO and the World Bank (2011), states that national governments can improve the condition of people with disabilities by improving their access to quality and accessible health care

services, reforming the policies and laws, removing obstacles for funding and accessibility, improving the training of employees and their employability opportunities. World Health Organisation (2015) emphasises the importance of suitable staff training to improve the situation of the disabled by urging the states to create training standards on various specialist training levels as a part of a wider health strategy. This means that global organisations have identified a necessity on the national level for each country to include proper preparation of health care specialists to work with the disabled as a means to improve health care for the disabled. However, according to the World Health Organisation (2015), national disability models and policies are affected by internal national factors. Communication from the European Commission (2014) "On effective, accessible and resilient health systems" states that health systems in EU Member States vary, reflecting different societal choices. This means that even though there are various international agreements and recommendations, the final health policy is adopted by each country individually taking its own context into consideration. The same conditions apply when speaking about the disabled and training of health care specialists working with them.

Article 3 of the Law on Public Health of the Republic of Lithuania (2002) called "Principles of Public Health Care" states that:

> "The key principles of public health care guiding the provision of public health care shall be as follows:
>
> 1. universal coverage, acceptability, adequacy, accessibility and scientific validity of public health care. […]."

Taking this into consideration, it can be said that public health care must be ensures in a suitable and accessible way irrespective of a person's disability or specific needs. Law on Health System of the Republic of Lithuania (1994) states that:

> "The health of the population is the greatest social and economic value of the society, [...] the potential of health and conditions for its maintaining are determined by [...] guarantees for education, [...] provision with [...] accessible, acceptable and adequate health care [...]."

Here, just like in the Law on Public Health of the Republic of Lithuania (2002), it is stated that health care for the residents of a country must be accessible, acceptable and suitable, but it is also noteworthy that the potential of health and support thereof is determined by the guarantees provided by education. This means that education both helps ensure people's education in questions of health care and training specialists responsible for health care. Law on Higher Education and Science of the Republic of Lithuania (Law on the Amendment of Law on Higher Education and Science of the Republic of Lithuania No. XI-242) claims that:

> "The mission of higher education and research is to help ensure the country's public, cultural and economic prosperity, provide support and impetus for a full life of every citizen of the Republic of Lithuania [...]. The policy of

> Lithuanian science and studies [...] caters to the compliance of the system of science and studies to public and economic needs [...]. A cohesive system of higher education and research [...] is the foundation for social [...] and [...] well-being."

Law on Higher Education and Science of the Republic of Lithuania (2009) declares that the national policy of studies and science must comply and ensure that the needs of the country and its residents are met, including their social well-being, and this means that the national policy of science and research, which is responsible for the training of specialists working for the well-being of society, must address the need to train such specialists who would be able to provide suitable and quality services to all residents of the country, irrespective of their health condition. Therefore, at this point, it is worth mentioning a provision established in Article 7 of the Law on Social Integration of the Disabled of the Republic of Lithuania (1997) that, in order to ensure equal rights of the disabled in the area of health care, "health care services for the disabled shall be provided in accordance with the same system and of the same level as to other members of the society." This means that health care specialists must be (or at least should be) trained in a way that would allow to ensure this provision effectively.

2 Legal regulation of the training of health care specialists

Even though training of health care specialists receives a lot of attention, as they are responsible for effective, appropriate, and timely provision of health care services, working with the disabled in the health care system usually requires specific knowledge that takes into consideration the health condition of the disabled and their specific disabilities. Therefore, it is natural that the training of health care specialists must also focus on their work with the disabled in the future.

There are four Lithuanian universities and six universities of applied sciences that have the right to prepare health care and pharmacy specialists. Just like in the case of all study programmes of higher education, requirements for the study programmes in cycles 1 and 2 designed for the training of health care and pharmacy specialists, are regulated in accordance with the Decree of the Minister of Education and Science of the Republic of Lithuania "On the Approval of the General Requirements for Study Programmes" (2016), Decree of the Minister of Education and Science of the Republic of Lithuania "On the Approval of the Description of General Requirements for Degree-Awarding First Cycle and Integrated Study Programs" (2010), and Decree of the Minister of Education and Science of the Republic of Lithuania "On the Description of General Requirements for the Master's Study Programs." (2010)

Judging from specific study programmes focused on medicine and health (field of study – biomedical sciences, group of studies – medicine and health), on the basis of which health care specialists are trained, and on the basis of Decree of

the Minister of Education and Science of the Republic of Lithuania "On the Approval of the List of Branches Comprising the Study Fields" (2010), currently, there are ten study fields confirmed in Lithuania (Medicine, Dentistry, Professional Oral Hygiene, Public Health, Pharmacy, Rehabilitation, Nutrition, Nursing, Medical Technology, Medicine and Health), branching out into 22 subsequent areas of studies. All fields of studies assigned to the group of medicine and health field of studies (except Medicine and Health and Medicine Technology) are regulated by the descriptions of the fields of studies approved by the Ministry of Education and Science of the Republic of Lithuania, and this means that all these institutions of higher education that offer study programmes in these fields of studies must comply with the provisions established in these descriptions. On the basis of the already confirmed descriptions of the fields of study that regulate the training of health care specialists (except the fields of studies of Medicine Technology and Medicine and Health, because there are no descriptions of them approved by the decree of the Minister of Education and Science of the Republic of Lithuania), Table 1 provides the key information about the formal requirements of study programs of the study fields assigned to the group of medicine and health field of studies (Full time studies and Extended studies).

Table 1

Formal requirements of study programmes classified as belonging to medicine and health sciences field of study

Name of the field of study	*Type of studies*	*Options of minor studies*	*Level of qualifications framework*	*Adaptation of studies to work with the disabled declared in the description of the field of study*
Medicine	University, integrated, full-time studies	No	VII (Integrated)	Special ability
Dentistry	University, integrated, full-time studies	No	VII (Integrated)	No
Professional Oral Hygiene	University of Applied Sciences / University, full-time studies	No	VI (Cycle 1)	No

Public health	University, Cycles 1 and 2, FT and Levelling	Yes	VI (Cycle 1) VII (Cycle 2)	No
Pharmacy	University of Applied Sciences (Cycle 1) / University (integrated), full-time	Yes (University of Applied Sciences)	VI (Cycle 1) VII (Integrated)	No
Rehabilitation	University of Applied Sciences (Cycle 1) / University (Cycles 1 and 2), full time, extended studies (Cycle 2 only)	No	VI (Cycle 1) VII (Cycle 2)	Personal ability (Cycle 2) Material basis
Nutrition	University of Applied Sciences (Cycle 1)	Yes (only as the main one with the exclusion)	VI (Cycle 1)	No
Nursing	University of Applied Sciences (Cycle 1) / University (Cycles 1 and 2), full time, extended studies (Cycle 2 only)	No	VI (Cycle 1) VII (Cycle 2)	General description
*Medical Technology**	-	-	-	-
Medicine and Health	-	-	-	-

*there are no description regulating studies

As it is evident from information provided in Table 1, taking into consideration the difficulty of study programmes of study fields and specialist qualification, almost all first cycle or full-time study programmes in all fields (except Public Health) are organised only as full-time studies and with an option of minor studies (except Public Health, Pharmacy and Nutrition). While speaking about attention paid to the disabled in the general guidelines for programmes, only

study programmes in the fields of Medicine, Rehabilitation and Nursing can be mentioned, as they address, albeit very little, the focus of the study programme on the disabled, as well as the work of specialists in training with them. In the Decree of the Minister of Education and Science of the Republic of Lithuania "On the Approval of the Description of Medicine Field of Studies" (2015), it is stated that one of the special study outcomes to be achieved by the graduates of medicine is an ability to "convey information for patients, patient's relatives, the disabled and colleagues in a clear, sensitive and efficient manner, including written and spoken communication (also applicable to medical documentation)". However, there are no other skills that would focus specifically on the work with the disabled included into the Regulations for medical training. As regards preparation of rehabilitation specialists to work with the disabled, in accordance with the Decree of the Minister of Education and Science of the Republic of Lithuania "On the Description of the Rehabilitation Field of Studies" (2015), it is stated that one of the personal abilities of Cycle 2 graduates to be achieved is the ability to make "independent decisions in situations that require to demonstrate understanding combining various scientific disciplines, deep and critical assessment of scientific knowledge, experience in solving problems in health care, rehabilitation and integration of the disabled, and modelling strategies to solve problems." In addition, according to the "Description of the Rehabilitation Field of Studies" (2015), proper organisation of a study programme requires a specific material basis, and one of the requirements is the equipment for the disabled. This suggests that study programmes of rehabilitation field of study address the work of future specialists with disabled persons. In the meantime, preparation of nursing specialists to work with the disabled is established in the Decree of the Minister of Education and Science of the Republic of Lithuania "On the Description of the Nursing Field of Studies" (2015), claiming that "knowledge, skills and values of nursing and obstetrics can be applied to all levels of personal health care institutions, providing health care services to all age groups of patients; in health care institutions of national defence, and the system of home affairs; institutions of social services – foster homes for healthy and disabled people of all ages, and private personal health care institutions." However, there are no specific requirements for working with the disabled outlined that would regulate the organisation of study programmes in the nursing field of study.

Finally, when speaking about the training of health care specialists, the Law on the Recognition of Regulated Professional Qualifications of the Republic of Lithuania (2008), which regulates the principles and mechanisms to recognise professional competences gained abroad, is worth mentioning. Even though this act is harmonised with the legislation of the European Union, and provides quite an extensive description in what cases qualifications are recognised and grant the right to undertake in their respective activities for medical doctors (Chapter Two), general practice nurses (Chapter Three), and dental practitioners (Chapter

Four), there are no specific requirements regarding the work with the disabled outlined.

Conclusion

Recent research studies (Miller, 2015; Sarmiento et al., 2016; Kirshblum et al., 2020) have provided evidence that only appropriate education of health care specialists and their training to work with the disabled can ensure proper provision of services and accessibility of health care services. International organisations (United Nations, World Health Organization, World Bank, etc.) encourage tnational policy-makers to pay more attention to the accessibility of health care for the disabled also by emphasising appropriate investment to training specialists in this field.

Even though various international and national legal documents regulating the position of people with disabilities state that rights of people with disabilities to health care should ensure compliance with the principles of accessibility, suitability, universality and which should be implemented by health care specialists, yet the documents regulating studies themselves and processes related to them (and in case of specific fields of studies focused on the preparation of health care specialists virtually non-existent) pay little attention to training future health care specialists to work with people with disabilities.

This begs the question whether such specialists are properly equipped to meet the demands of the health care system to ensure good quality and proper provision of health care services to all members of the society irrespective of their special needs or disability.

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Raising Awareness of Disaster and Giving Disaster Education to Children in Preschool Education Period

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Abstract:
Introduction: Disasters and emergencies adversely influence around 70 million children worldwide. Regrettably, those who suffer the most from the consequences of any natural disaster and do not have any knowledge on how to protect themselves in such situations are children. Particularly, educating and raising the awareness of children in this respect should be one of the common and fundamental problems of the world. It is recognized that disaster education and disaster awareness, which will be presented to children in the preschool education period when they get formal education for the first time, is essential. The general purpose of this research is to define the ideas of teachers who intend to bring disaster education and disaster awareness to children during the preschool education period.
Methods: This research was designed with the typical case study method grounded on qualitative analysis. The study group of the research was 35 preschool teachers who were selected among the population through the typical case sampling method and volunteered to participate in the research. The research data were obtained through face-to-face interviews with preschool teachers who joined the study group. In examining the obtained data, content analysis and descriptive analysis approaches were applied together, and the data were summarized and interpreted.
Results: The tables created under five headings were formed by taking into consideration each interview question based on the research findings. In the contemporary preschool education programs executed in Turkey, it is possible to say that the teachers determine the need resulting from the absence of any achievement for acquiring the education and consciousness of disaster to children. Besides, some of the teachers who took part in the research affirmed that disaster education to be provided to children during preschool education is not proper to their development levels and ages.
Discussion: During the preschool education period, teachers asserted that disaster education and disaster awareness could be achieved by using drama methods, exercises, and educational games. Based on their opinions supported by experts and family involvement in providing disaster

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education and raising the disaster awareness of children, trips can be designed to non-governmental institutions and organizations related to this subject. It could be said that teachers have the idea that the solutions linked with the subject should be managed and supported at the whole societal level.

Limitations: The sample consisted of thirty-five preschool teachers working in central districts of Erzurum in the 2018-2019 academic year and the "Teacher Interview Form", which was applied in the preschool education period to give disaster education and disaster awareness to children.

Conclusions: It is plausible to say that, in the preschool education period, teachers prioritize the idea that common achievements on the subject can be involved in preschool education programs in order to provide disaster education and raise the disaster awareness of children on an international level. They declared that if such gains are involved in preschool education programs, they will also need education in this respect.

Key words: preschool, disaster education, awareness of disaster.

Introduction

Since the second half of the twentieth century, people have become more careless in terms of the use of nature according to their wishes, which is the basis for many problems we encounter today (Ogelman & Güngör, 2015). The cycle of nature and the problems caused by global warming have continuously influenced our entire lives. In any part of the world, people are frequently confronted with various natural disasters and have to face their consequences. Disasters are facts and events that influence the sociological and psychological structures of countries, they cause life, property, and economic losses the effects of which are displayed in different ways. Although disasters can be divided into several groups according to their types, natural disasters come into prominence because of life losses and financial damages caused by them (Sever, 2019). All kinds of events that naturally occur and influence the lives of people, both materially and physically, are described as natural disasters – e.g. earthquakes, disturbances, floods, avalanches (Baskurt & Karadag 2001; Sahin & Sipahioglu, 2007; Hallegatte & Przyluski, 2010). Although disasters are mostly irresistible natural phenomena, it is possible to reduce the destruction they make at the level of individuals and the society with by developing disaster awareness, which is systematically acquired (Clerveaux, Spence, & Katada 2010). Disaster education provided from an early age is essential in shaping this awareness (Musacchio et al., 2016; Komac, Zorn, & Ciglic, 2013). Surely, in order to minimize these losses of life and property and to decrease economic losses, all countries have inquired about the solution of the issue within their educational systems and sought to solve the problem within their education, plans, programs, and policies.

Disaster education should be provided to individuals of every age in the form of learning about the geographical characteristics of their region, increasing the awareness about the disasters they may face, and how to behave in the case of any disaster (Erkan, Özmen, & Güler, 2011). Disasters mostly influence children because they are not mature enough to comprehend the harms of disasters (Berument, Sayıl, & Uçanok, 1999; Erkan, 2010). Children are adorned with curiosity and desire to learn their environment for researching and discovery (Saçkes et al., 2011).

The educational process in families and institutions, in which the physical, psychomotor, social-emotional, mental and language development of children from the day of birth to the beginning of primary education, comprising the age of 0-6 takes place, the period when the personality is formed, and which plays an essential role in their later life, is considered a pre-education period (Aral & Yaşar, 2000). The preschool period is crucial as it is the beginning of the educational life of the child. The quality of education received in this period is reflected in children's development and their entire lives (Yumuş, 2013). Since the children in this period show challenging, investigative and inquisitive behaviors, they should be provided with learning environments where they can build cause-effect relationships between events, meet their curiosity, and unveil their guessing skills (Aktaş-Arnas, 2003). The essential task of preschool education is to manage, promote, and develop the child who is inquisitive about his environment and is motivated to learn and think (Senemoğlu, 1994). Preschool years, which have a significant influence on human life and leave lasting traces, form the future life of the individual. In the preschool period, the child achieves their learning through experiences and observations concerning the family, society, and nature where they live.

Approximately 70 million children worldwide are negatively influenced by disasters and emergencies (Penrose & Takaki, 2006). Regrettably, those who are suffering the most from any natural disaster and do not understand how to protect themselves from their consequences in such situations are children. Particularly educating and raising the awareness of children in this respect should be one of the common and fundamental problems of the world. It is noted that disaster education and raising disaster awareness in the preschool education period when they experience formal education for the first time, is important. In their, Değirmenci, Kuzey, and Yetişensoy (2019), drew attention to the requirement for disaster awareness programs that will include all parts of the society in order to raise the awareness of the communities about disasters and relieve the destructive consequences of disasters.

Disaster education should not be standardized because of the difference in social structures, political systems, tradition and customs, health systems, and the lack of a universal language that cannot be used in disaster readiness at an international level (Koçak, 2019). It can be observed that the preliminary planning of disaster education in the countries across the world differs according

to their internal policies, cultures, and economic structures (Kitagawa, Preston, & Chadderton, 2017). Despite the measures and struggles against disasters all over the world, disasters also show the need for an international capacity that requires local intervention capacity, hence surpassing the borders of the region and the country because of the compelling power of nature or the indifference of human beings (Coppola, 2011). For this reason, the Sendai Declaration was announced on 18 March 2015 with the end of HFA's ten-year plan in 2015, which is the first global strategy centered on disaster risk minimization and preparing a detailed work plan for various sectors and actors. Sendai Declaration is a voluntary contract accepted by 187 United Nations members after comprehensive negotiations at the World Conference on Disaster Mitigation (Aitsi-Selmi et al., 2016).

It is continuously stressed that disaster education in schools across the world is essential, particularly for families and children in shielding against disasters and boosting awareness of societies (Shiwaku et al., 2007; Mızrak, 2018; Değirmenci, 2018). Besides, Kitagawa (2015) declared in his study in Japan that formal education contents and disaster education policies are being formed depending on the lessons acquired from disasters. Asharoseve Praveen (2015), on the other hand, highlighted the role of direct education presented by institutions and secondary education presented through one's own daily activities in increasing disaster awareness of societies.

Today's children will be the builders of the future and adult individuals who will form the life. It is essential to convey information and skills to children about the dangers and mitigation of disaster risks in schools, both for the protection of children against disasters that will happen today and for the construction of a secure society for disasters in the future (Musacchio et al., 2016). In the preschool education period, it is beneficial to teach children basic and straightforward information about awareness and what to do in the case of a disaster (Budak, 2019). Besides, disaster resistance education provided at all levels is essential in order to improve the disaster resistance of societies and to be prepared for disasters (Varol & Kırıkkaya, 2017).

When the 2013 school disaster education training program for children in preschool education, currently available and in force, is analyzed, a lack of planned activities to raise the awareness concerning any disaster events among children is observed. As children often have experienced natural disasters in different parts of the world - including Turkey - the preparation in this respect becomes an unavoidable requirement. The preschool education period can bring a range of opportunities for children to learn by doing and living on this topic. For this reason, the research was carried out to investigate on disaster education and raising disaster awareness of children during the preschool education period in accordance with the teachers' opinions. It is essential as its findings can contribute to the field globally, increase the awareness among all education shareholders interested in the subject and initiate further studies on the subject.

The preschool education programs available in Turkey do not offer any space for raising children's awareness about disaster problems, which is the subject of this research.

The principal purpose of the research is to find out about the opinions of teachers who intend to provide disaster education to children and raise their disaster awareness during the preschool education period. In line with this general purpose, the following questions are to be answered:

- Should disaster education be provided and disaster awareness risen in preschool education? Why?
- Can you explain what should be taught about disasters and disaster awareness in preschool educational institutions?
- How should disaster education be provided to children and how should their disaster awareness be risen in preschool educational institutions?
- Could you, please, explain your opinions on disaster education provided to children on an international scale and to describe the type of collaborations, which can be performed to enhance disaster awareness?
- If you have further opinions that you would like to add, please define.

1 Methods

In this part, the research model, study group, data collection tools, and data collection and analysis process are dealt with.

1.1 Research model

In this research the standard case study method grounded on qualitative analysis was applied. A case study is a methodological approach that incorporates an in-depth analysis of a system utilizing multiple data collection to collect precise information about how a restricted system works (Chmiliar, 2010). Merriam (2013) explains the method of case study as an in-depth description and analysis of a restricted system.

1.2 Research sample

The research sample consists of 35 preschool teachers working in Erzurum city center in the 2018-2019 academic year. The sample was selected from the population by the typical case sampling method – the teachers volunteered to participate in the research. Typical conditions are situations that include a level of information that can reveal the event or phenomenon examined in general, among numerous similar situations in the population (Patton, 2005). In other words, typical case examples are applied to explain situations that can describe the universe and do not vary from the universe in terms of their essential characteristics (Marshall & Rossman, 2014).

1.3 Data collection tools

In the research, semi-structured interviews with teachers were carried out. They were used for the purposes of data collection to determine the importance of providing disaster education to children and raising their disaster awareness. In order to enhance the content validity of the interview form, the opinions of three experts - one from the department of geography teaching and two from the preschool education department - were asked. Following the opinions of the experts on the subject, the questions in the interview form were reviewed, the order of the questions was organized accordingly, the points that were considered inadequate were arranged, and the form was settled. Within the pilot research, interviews with five preschool teachers who were not included in the research sample were made, and the validity and usefulness of the interview form were tested. Then, 40 minutes-interviews were carried out by arranging appointments with the teachers participating in the research in their schools. During interviews, the teachers taking part in the research were provided information about the research. A recorder was used to restrain data loss during the interview.

1.4 Data collection and analysis

The research data were obtained through face-to-face interviews with preschool teachers in the research sample. In the research, a semi-structured interview form was used as a data collection tool in order to obtain comparable results from the field of providing disaster education and raising disaster awareness during the preschool education period in line with the research questions and the information available in literature. The questions of the interview were developed by the researcher. Attention was paid to principles, such as easy understanding of questions and avoiding multidimensionality or guiding the respondent (Yılmaz ve Altınkurt, 2011).

In analyzing the collected data, content analysis and descriptive analysis approaches were applied together, and the data were summarized and interpreted. The aim of content analysis is to collect similar data under certain concepts and themes and to organize and describe them in a way that people can understand (Yıldırım & Şimşek, 2011). The goal of the descriptive analysis was to explain how an event happens and lasts, or what a situation looks like, and to try to make complicated things more comprehensible (Punch, 2005). Since keeping the identity of the research participants secret is ethically appropriate in research, their names were coded such as T.1 T.2… T.35. Since two of the thirty-five teachers who took part in the interviewing process - T.24 and T.29 - did not answer the question concerning the development of disaster education and raising disaster awareness during the preschool period, they were not asked other interview questions in the semi-structured interview. Hence, the data collected from the research were examined within the scope of the data collected from the interviews performed with the other thirty-three interviewees.

2 Findings

The data collected from the interviews with preschool teachers are displayed in tables. Based on the research findings, answers to each interview question were grouped in tables under five headings - Teachers' opinions about disaster education and raising disaster awareness in preschool education period; Teachers' opinions on what can be taught within preschool education in order to provide disaster education to children and raise their disaster awareness; Teachers' opinions on disaster education and on how to raise disaster awareness in preschool education period; Teachers' opinions on disaster education in children on an international scale and what kind of joint activities can be performed to enhance disaster awareness; and Teachers' opinions by which they want to contribute to the subject.

Teachers' opinions about disaster education and raising disaster awareness in the preschool education period are displayed in Table 1.

Table 1

Teachers' opinions about disaster education and raising disaster awareness in preschool education period

Theme	*Codes*	*f*	*%*
Opinions about providing disaster education and raising disaster awareness	It should be provided	33	94
	It should not be provided	2	6
Opinions about why it should be provided	Raising consciousness and awareness	27	77
	Introducing natural events around us	4	11
	Psychological preparation for the situation	2	6
Opinions about why it should not be given	It is not appropriate to their developmental levels	2	6

When Table 1 is examined, the opinions of teachers on the provision of disaster education and raising children's disaster awareness are as follows: disaster education should be provided in pre-school education period and disaster awareness should be risen - f: 33 - 94%; and disaster education should not be provided and disaster awareness should not be risen - f: 2 - 6%. Teachers who expressed their opinion that disaster education should be provided during the

pre-school education period and children's disaster awareness should be risen, listed the following reasons: to raise children's consciousness and awareness (f: 27- 77%); to introduce the natural events around them (f: 4 - 11%); psychological preparation for the situation (f: 2- 6%). According to f: 2- 6% of pre-school teachers, children should not be provided with disaster education and their disaster awareness should not be promoted in the pre-school education period, because they think that such education is not appropriate to children's developmental levels. T.9 added to "raising consciousness and awareness," that "Raising consciousness and awareness in children at an early age must be ensured because it is necessary for their lives," T.3 commented on "recognizing the environmental phenomena around them" as "Knowing the environmental phenomenon around them should be given because it is an essential starting point in preparing them for life.", T.35 explained "psychological preparation for the situation," as "When children face any natural disaster, they can feel mentally ready, more salutary, and better." T.24 commented on "not appropraite to their developmental levels" as "I think that children are not ready for such an education in terms of mental, affective and physical development in this education period. This sort of education may influence their mental development negatively."

Teachers' opinions on what should be taught in order to provide disaster education and raise disaster awareness throughout preschool education are presented in Table 2.

Table 2

Teachers' opinions on what can be taught within preschool education in order to provide disaster education to children and raise their disaster awareness

Theme	*Codes*	*f*	*%*
Opinions on what can be taught to children linked with disaster education and raisingdisaster awareness	Explaining disaster prevention methods	26	78
	Necessary information about what needs to be performed before and during the disaster can be given	15	45
	Providing information about the numbers to be called at the time of disaster	12	36
	Providing information about what sort of disasters they may face in their region	9	27
	Preparing a disaster bag and explaining what should be placed in this bag	5	15

When Table 2 is examined, teachers expressed the following opinions on what can be taught to children linked with disaster education and raising their disaster awareness: explaining disaster prevention methods (f: 26 - 78%); providing children with necessary information about what should be done before and during a disaster (f: 15 - 45%); providing information about the numbers to be

called during a disaster (f: 12 - 36%); informing children about what kind of natural disasters they may encounter in the region where they live (f: 9 - 27%); preparing disaster bags and explaining what should be in these bags (f: 5 - 15%). In the context of the ways of presenting necessary information about disaster prevention, T.11 responded that: “Animations and films can be watched about what a disaster is and how they can be protected themselves from them.”, T.8 commented on providing necessary information about what should be done before and during a disaster and indicated that "Information about safe places before disaster, exit routes, preparation for disasters and how to behave during disasters can be provided.", T.30, in relation to providing information about the numbers to be called at the time of a disaster, wrote that: "Awareness can be risen by using various visuals with the numbers to be called for help in the event of a disaster." T.32 stated that when providing information about the types of disasters they might face in the region where they live - "It can be explained how they should act during this disaster concerning the most common natural disasters happening in their environment.", T.35 suggested for the process of preparing disaster bags and explaining what they should include that: "Before a disaster situation occurs, the importance of preparing a disaster bag in the process of preparation for a disaster should be taught and children should be told about the equipment that should be in this bag."
Teachers' opinions on how to realize disaster education and raise children’s disaster awareness during preschool education are presented in Table 3.

Table 3

Teachers' opinions on disaster education and on how to raise disaster awareness in preschool education period

Theme	*Codes*	*F*	*%*
Opinions on the ways, in which disaster education should be relized and disaster awareness should be risen	Teaching with experts’ assistance	14	42
	Teaching by using educational games	12	36
	Teaching by field trips	11	33
	Teaching using movies and slideshows	8	24
	Teaching through family participation	7	21
	Teaching by a straight narration method	5	15
	Family involvement	4	12
	Lectures	4	12

When Table 3 is examined, it can be seen that teachers expressed their opinions on the application of forms and methods of disaster education and promoting disaster awareness in the preschool education period and listed the following: teaching using drama (f: 14 - 42%); teaching using demonstrations (f: 12 - 36%); teaching with assistance from experts on the subject (f: 11 - 33%); teaching by using educational games (f: 8 - 21%); teaching through field trips (f: 7 - 21%);

teaching by using movies and slideshows (f: 5 - 15%); teaching by providing family participation (f: 4 - 12%); and teaching by the straight narration method (f: 4 - 12%). According to T.2, teaching by using drama means: "Providing students with a learning environment where they can learn how to act during disasters by an active engagement in these activities."; for T.7 the following type of demonstrations should be applied during teaching: "Demonstrations about how to protect them can be made.", T.18 in the context of teaching with assistance from experts indicated that: "Support can be demanded by requesting assistance from universities and non-governmental organizations associated with disaster education. Such participation may catch children's attention."; for teaching with games, T.5 emphasized that: "Children love to perform games the most during this period. Accordingly, disaster education can be provided by educational games to make it attractive for children."; for teaching by field trips, T.19 noted that "Trips can be arranged to raise the awareness of children and institutions associated with disaster education in the environment we live in."; T.1 commented on teaching with slide shows: "Awareness of the subject can be formed by getting students to watch movies and slides linked with disaster education."; T.23, in relation to teaching with family participation noted that "Providing disaster education to children and their families at the same time during the preschool education period may attract the children's attention,"; and T.27 commented on the application of the method of straight narration as "We can explain this subject to children and discuss their opinions related to the topic."

Teachers' opinions on disaster education and raising disaster awareness among children on an international scale are presented in Table 4.

Table 4

Teachers' opinions on disaster education in children on an international scale and what kind of joint activities can be performed to enhance disaster awareness

Theme	*Codes*	*f*	*%*
Teachers' opinions on disaster education and the kind of joint activities which can be prformed to enhance the disaster awareness of children on an international scale	Including joint achievements on the subject in the programs	27	82
	Providing financial support	18	55
	Providing continuity and actuality to studies	17	52
	Shaping the access platform	12	36
	Solidarity and cooperation	12	36

In Table 4, teachers' opinions on the kind of joint activities that can be applied in the preschool education period in order to provide disaster education and increase children's disaster awareness on an international scale are listed: including common achievements linked with the subject in the programs (f: 27 -

82%); providing financial support (f: 18 - 55%); providing continuity and actuality to studies (f: 17 - 52%); creating access platforms (f: 12 - 36 %), solidarity and cooperation (f: 12 - 36%). For including joint achievements on the subject in the programs, T.30 suggested that: "The best scientists of the countries can be gathered in a joint conference or workshop to discuss the subject in detail. The results can be shared in the programs related to the preschool education period. So, we can add universality to the subject. The solution becomes broader and more inclusive. Also, these scientific activities are related to a routine, and continuity and actuality are provided. This is a requirement as the information are constantly changing.", T.11 finds providing financial support important and stated that: "Ministries of education or administrations of countries should provide financial support to activities being conducted in this context." T.1 commented on providing continuity and actuality to the studies: "If you want to achieve success in a subject, you must permanently improve. Therefore, achieving success is a lengthy journey and requires effort."; T.20 advocated for creating a shared platform: "I attach a strong importance to the fact that countries need to share their practice and new ideas they have developed during the year in order to provide disaster education and raise disaster awareness in the preschool education period through a common platform."ô and T.8 finds solidarity and cooperation of the countries decisive: "It is essential for universal values that developed countries support developing and underdeveloped countries in this respect.

The opinions of teachers by which they want to contribute to the subject are presented in Table 5.

Table 5

Teachers' opinions by which they want to contribute to the subject

Theme	*Codes*	*f*	*%*
Teachers' opinions they want to contribute to the subject	It resulted in a need for education	22	67

3 Discussion

Most of the teachers declared that it is essential to provide disaster education to children and raise their disaster awareness in the preschool education period. Children should understand the natural phenomena occurring around them, to be mentally prepared for a natural disaster. In a related study supporting the research finding, Fetihi and Gülay (2011) asserted that natural disaster education programs provided to children within preschool education improve their knowledge and awareness in Sapsağlam (2019). In their study, Ohnishi and Mitsuhashi (2013) asserted that the role of disaster education in making children's lives more secure is becoming more and more significant. In the

contemporary preschool education programs executed in Turkey, it is possible to say that the teacher determines the children's education and the needs stemming from disasters in the form of disaster education and raising disaster awareness are not met. According to Macaulay (2007), school programs are an excellent opportunity to prepare students for disasters that may happen in their environment. Additionally, some of the teachers who took part in the research, affirmed that disaster education provided to children during preschool education is not appropriate to their development levels and ages. It is difficult to say whether disaster education and raising preschool children's disaster awareness is appropriate to their age and development levels or not, it should be examined by experts. The application of findings on disaster education and promoting children's disaster awareness can improve children's awareness on the subject, allow them to get to know more about the natural phenomena around them, and make them feel more prepared for natural disasters. Özelmacı's (2016) proposal, suggesting that the disasters occurring in the student's environment, province, country firstly, and then disasters in the world should be taught by the application of the near-to-far principle in disaster education supports the above research result.

It can be said that most of the teachers participating in the research draw attention to the importance of teaching children about disaster prevention methods during the preschool education period and training them on what to do before and during a disaster. In a study, Sarı (2016) found out that starting disaster education in preschool education period and the familiarity of students with the concept of disaster at a young age enhance their preparedness for disasters, and the information gained about disasters at a young age are be more durable compared to older ages. Similarly, Avcı's (2019), Meral's (2014), and Şahin, Lamba, and Öztop's (2018) research findings showed that students should be prepared for disasters and their primary disaster awareness should be developed in the process of education. Therefore, they asserted that during the preschool education period, teachers should introduce them the natural disasters that they can face in the region where they live and the phone numbers where they can ask for help during disasters. Teachers should show them how to apply a sensible and intelligent approach in the preparation of a disaster bag as a part of disaster preparedness. The teachers stated that during the preschool education period, drama methods, demonstrations, and educational games should be used for the purposes of disaster education and raising children's disaster awareness. As can be seen, they declared that in order to provide disaster education and raise disaster awareness in the preschool education period, teachers should be given a chance to learn by doing and living and improve their creativity. It can be also assumed that teachers should emphasize the activities of the constructivist approach, which will highlight the individual differences of the children and engage more actively in the learning processes. In agreement with the study by Kadıoğlu (2006) asserting that disaster education activities should

be realized in a way that is determined towards life, learning by doing and living, Yılmaz (2014) concluded that disaster education should be based on the most active approaches with student participation and highlighted the importance of their implementation in disaster education. Also in Sağ's (2017) study, it was stated that it is possible to get rid of the adverse effects of disasters by means of education, which is the most essential element in the preparation for disaster studies. According to Fuhrmann et al. (2008), a small piece of information can preserve a life or shorten a disaster (p. 19) which supports the presented research results. Based on the opinion that teachers can use expert support and family engagement in providing disaster education to children and raising their disaster awareness, also trips can be arranged to non-governmental institutions and organizations on the subject, and it could be said that teachers believe that the solutions associated with the subject should be handled and supported at a whole societal level. These research findings are in accordance with the results of the research by Mızrak (2018) who claims that disaster education should be provided by experts and experienced people to be sustainable and prosperous. Besides that, as a part of family engagement in the educational process, planned activities for parents can contribute to the development and education of their children (Ömeroğlu & Can-Yaşar, 2005). Still, it is considered that disaster education provided to children can decrease the stress and fear that children experience when confronted with an unknown event, and by sharing this education with family members at home, repeating the acquired information at home and giving social support in their families, it comes to constant learning on the subject (Ronan & Johnston, 2003).

It is plausible to state that in the pre-school education period, teachers have adopted the opinion that, in order to provide disaster education to children and raise their disaster awareness on an international scale, knowledge associated with the subject can be involved in pre-school education programs. On the other hand, it can be seen that they draw attention to the need for financial support for their studies in the discussed field and the importance of providing continuity and timeliness to the studies to be carried out on this subject. Still, they drew attention to the necessity of countries cooperation and solidarity in terms of sharing information by creating a universal access platform. Moreover, teachers point out the use of resources such as scientific knowledge, technology, and the economy at the international level together and effectively as essential arguments for the solution of problems associated with the subject.

Conclusions

In this study, conducted to ascertain what can be presented to children about disaster education and disaster awareness in the pre-school education period, the teachers declared that if such gains were involved in pre-school education programs, they would also need education in this respect. Another research that confirms the above results was carried out by Avcı in 2019, suggesting that

teachers should receive education related to disasters and improve their insufficiencies.

These insufficiencies can be eliminated by lessons in the undergraduate process, in-service training, or by receiving related training from various sources. In his study, Yılmaz (2014) highlighted that disaster education was not handled adequately in teacher training programs and that some steps should be taken in order to eliminate this deficiency. As it can be understood from the results of this research, it is observed that the pre-service and in-service training of pre-school teachers in the field of providing disaster education and raising children's disaster awareness is ineffectual.

Based on these results, the following suggestions can be presented:

- The findings about disaster education and disaster awareness can be involved in current pre-school education programs following the opinions of educational experts and education stakeholders.
- The awareness of the subject can be improved by teaching children the phone numbers they can call before and during a disaster, and teaching them to prepare disaster bags within preschool education.
- In the pre-school education period, children can be taught vital information about the ways of avoiding disasters, what to do before and during disasters.
- It should be considered that movements can be invited for disaster education as they can contribute to raising children's disaster awareness as they can promote love of nature and the environment in them.
- On the other hand, methods such as drama, educational games, and demonstrations can be applied in providing disaster education to children and raising their disaster awareness by teachers in the pre-school education period.
- During the pre-school education period, support from specialists and family participation can be applied while providing disaster education to children and raising their disaster awareness. Additionally, trips can be planned in cooperation with non-governmental organizations and institutions.
- With the assistance of educational experts from all countries, the joint achievements can be covered in the programs in order to provide disaster education and promote disaster awareness in the pre-school education period, and a standard can be brought to the subject.
- Sharing knowledge, skills, technology, and financial support among the related countries can speed up the solution of problems.
- During pre-service undergraduate education, preschool teacher candidates should be provided with disaster education and disaster awareness classes should be given to in-service to preschool teachers.

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Socio-Cultural Based Learning Module for Critical Thinking Ability in Elementary School: Systematic Search

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Abstract:
Introduction: The purpose of this article is to examine the use of socio-cultural based learning modules for developing critical thinking skills in elementary school children.
Methods: This article is a systematic review that collects data from relevant indexed journals.
Results: The findings are discussed in theoretical studies so as to produce conclusions. Well-structured socio-cultural modules can provide many benefits for students, namely for students who are actively involved in learning activities, and they can also attract students' to be involved in learning activities.
Conclusions: The application of socio-cultural learning helps students in learn about their own culture, which can develop students' character. These findings provide input for future research needed to develop socio-cultural based learning modules for the critical thinking needs of elementary school children.

Key words: elementary school, learning, module, socio-cultural, student, thinking.

Introduction

The ability to think critically is always important and has become a vital need for the society in the 21st century. Every generation needs more education than ever before as the world is increasingly technical and complex (Wijaya, Sudjimat, & Nyoto, 2016). The ability to think critically is the ability to think at a higher level. This ability affects the decision making process of individuals, which determines the outcomes of their later actions. Therefore, there is a need to promote students' critical thinking skills, which enable them to learn about problems or challenges in an organized way.

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Conducted studies (Trilling & Fadel, 2010) show that graduates from high schools and higher education institutions are still less competent in terms of: (1) oral and written communication, (2) critical thinking and problem solving, (3) work ethics and professionalism, (4) working in teams and collaboration, (5) working in different groups, (6) using technology, and (7) project management and leadership. In the seven conditions that need to be improved, critical thinking skills are included. This shows that students are still unable to critically analyze problems when learning. Students should be taught how to develop critical thinking skills from their childhood so that later they can think logically and identify problems, which can be useful for them in the world of work.

In the study by Novikasari (2009), the obtained data show that critical thinking skills are still low. It is visible in students who have difficulties when working on a problem, the solution of which requires thinking skills. This fact is caused by a lack in understanding the problem by students, in associating a concept with other concepts, especially in mathematics, which in turn results in inaccuracies in solving problems. A problem in critical thinking skills can also be seen in students' disability to develop their ideas in solving problems. There are students who can solve problems only if the questions are similar to those asked by the teacher.

Other problems occur in the potential of teaching materials in schools that are still minimal. The scope of texts in teaching materials is also not broad for students' knowledge. Teaching materials in the form of handbooks approved the government are still not based on local socio-cultural knowledge, which should be developed in students from an early age. Especially currently, when students who are more familiar with technologies than their own culture.

1 Methods

This article is a systematic review that collects data from relevant indexed journals. These findings are discussed in this theoretical study so as to produce a conclusion.

2 Results and discussion

2.1 Learning module

A module is one of the available learning materials in the form of an independent package book. Modules are also a supporting learning resource for students that helps them understand learning materials. The content of a module includes a series of learning experiences covering various activities, information, experiments and even practice questions (Pramantik & Burhaein, 2019; Purwahida, 2018). Modules are complete small units that stand alone, designed so that students can learn independently.

The learning module is a learning unit consisting of several complete components designed for one individual or a group of learners without the presence of a teacher (Nilasari, Djatmika, & Santoso, 2016). As there is no teacher, students can learn independently through their own modules. The teacher is there only to monitor students' activities. It is expected that without the presence of the teacher, students' learning with the modules can run well.

Learning by using modules as independent teaching materials is designed to achieve the set educational goals. Modules are not only a learning format; they can also involve a set of learning materials which complement each other during the learning process. Modules are a set of materials based on learning objectives focusing on behavior, containing a series of learning activities and there are certain requirements based on which the realized activities can be evaluated (Burhaein, 2017b; Redhana, 2013).

Modules as a type of unit for planned learning activities are designed to help students to complete specific goals. Students often play a passive role in the learning process, but with the application of learning using modules they get into the centre of the learning process and more and more teachers act as learning facilitators. In other words, currently, the emphasis is placed on the student-centered approach. To promote effective learning, there is a need to develop learning materials that are useful for both teachers and students. They must be encouraged to perceive development as an ongoing process. Each module should contain activating learning activities and meet variety of students' needs resulting from individual differences (Rahman, 2014). More time can be given to students to carry out activities and complete assignments. By using the module as a learning resource, students can learn independently and acquire educational content at their own pace at each student in achieving their own learning objectives.

Learning modules that have a positive impact on students must have the proposed design approach to be the basis for developing educational activities and strategies in order to increase awareness and change the attitudes of elementary school students positively. Based on some opinions about the module, it can be concluded that the module is a set of teaching materials consisting of a series of activities arranged in an interesting and systematic way to achieve the learning objectives so that students can learn independently both without or with the guidance of the teacher. The complete content of the module must be arranged in such a way that students do not miss the teacher delivering the teaching content to their students.

2.2 Socio-cultural learning

Human development as a process of cultural development requires an explanation of culture. Most researchers who try to define culture agree that this refers to a lifestyle shared by a group of people and describe it as a set of attitudes, values (including knowledge and techniques), goals, and practices that

characterize institutions, organizations, or groups. Vygotsky's constructivist approach emphasizes students' constructing knowledge through social interactions with others. The content of this knowledge is influenced by the culture in which the student lives, which includes language, beliefs, and expertise or skills (Yohanes, 2010). Social interactions allow students to shape their cognitive knowledge. The development of material or teaching materials for students are based on socio-cultural contexts. Teaching materials are adjusted to the social and cultural conditions of students as learning resources that are close to the environment in which they live.

Socio-cultural learning, as a precondition for the manifestation of ingrained behavior and modes of perception, is very important in a particular entity or group as it shapes the character of the surrounding community related to social culture. The following ways of socio-cultural learning can be applied (Dongyu, Fanyu, & Wanyi, 2013): 1) finding out about the background of students's lives from the social and the cultural aspects by teachers; 2) using a variety of social and cultural backgrounds in developing learning curricula in schools; 3) teachers should try out various teaching models in order to lead students with a range of background - including the socio-cultural potential that is around schools or students - towards success; 4) providing opportunities for students to get to know one another by arranging learning in a way, which can optimize collaboration between students; 5) teachers should associate social and cultural aspects that exist in the environment around students in fostering meaningful learning. Based on the above, it can be stated that socio-cultural based learning can be applied well if teachers also implement some local socio-cultural knowledge in their teaching. Currently, problems stemming from the absence of local socio-cultural based modules can be observed.

2.3 Critical thinking ability

Students' thinking skills must be developed from an early age when they should be taught how to use higher-order thinking skills in solving problems and when facing challenges. One of the important thinking skills to be developed is the ability to think critically (thinking includes basic thinking, critical thinking, and creative thinking). Critical thinking belongs to higher order thinking skills (Redhana, 2013). Students' critical thinking skills can be observed based on students' critical thinking behavior. According to another points of view, critical thinking is reflective and productive thinking and involves evaluating evidence (Santrock, 2017). In agreement with that, we can state that critical thinking is the ability and tendency to make assessments based on evidence.

In the 21st century, critical thinking is one of the most important skill for citizens (Wijaya et al., 2016). Critical thinking is defined as a set of intellectual thinking skills, such as analyzing, reasoning, problem solving, creative thinking, making good judgment and decision making. Critical thinking involves evaluating the thought process – what the outcome of the thought process is,

how good a decision is, how well a problem has been solved or what is the reasoning process that comes to the conclusion reached or which factors are considered in decision making. Critical thinking is sometimes called directional thinking because it focuses on achieving the desired results.
Critical thinking is an active, coordinated, complex process, such as reading and writing, speaking and listening, which involves thinking processes that begin with an active accumulation of information and results in reasonable decisions. Critical thinking is the art of analyzing and evaluating thoughts with a view to improving them. So, the critical thinking ability - which is a thought process - can be developed by a construction of thinking as a result of analyzing and evaluating effectively. There are eight steps leading to becoming a critical thinker (Brahler, Quitadamo, & Johnson, 2002, the following questions must be answered: 1) What exactly is the issue, problem, decision, or activity being considered? 2) What is the point of view? 3) What are the reasons proposed? 4) What assumptions have been made? 5) Is the languages clear? 6) Are the reasons based on convincing evidence? 7) What conclusions are offered? 8) What are the implications of the conclusions? Based on the eight steps by Johnson above, the process of critical thinking leading to problem solving can be shortened to the following four questions: 1) What is the problem? 2) What is being sought? 3) What is the solution? and 4) What are the conclusions?

2.4 Socio-cultural based learning module for the development of the critical thinking ability in elementary school children

Learning at elementary schools is very different from learning in secondary schools. This is because the characteristics of elementary school students are different from middle school students. The differences in characteristics between elementary and middle school students are striking. Significatn difference occur in the students' level of thinking and age. The age of elementary school children is in the range of 7-11 years. Piaget suggested that middle and late childhoods were at a concrete operational stage which took place at the age of children from 7 to 11 years (Burhaein, 2017a; Santrock, 2017). Children in the third grade of elementary schools are at the concrete operational stage of cognitive development. Students at this stage can reason logically, they already know mathematical symbols, but are still not able to deal with abstract things. At this stage, it comes to a decrease in children's self-centeredness, and they are becoming more socio-centric.
A thematic integrated curriculum makes it easier for teachers to plan units of the curriculum. They are able to cover more content and help students make connections to everyday life. Problems related to daily life are fully integrated in the learning process, students are required to think critically in solving problems related to the everyday life. In order to solve problems, students must choose and re-arrange the knowledge and learning experiences they have. The flow of constructivism sees first-hand the experiences of students as a key element in

learning (Subadrah & Malar, 2005). In this case, learning adapted to socio-cultural life can enable students to construct their knowledge and apply it.
In this context, learning is a process, which involves the social and cultural characteristics of students so that after the learning process is implemented, students are able to reconstruct their socio-cultural knowledge (Arwansyah, Suwandi, & Widodo, 2016). For example, the teacher is seen as a source of knowledge and students as passive recipients. This method is opened for students to accept information without being criticized based on the knowledge they have already gained. The learning process must be related to socio-cultural features in the environment surrounding the students. The issues dealt with during socio-cultural based learning are close to the daily life and so, it can be also characterized as contextual learning. Such learning can improve students' abilities or knowledge - including their critical thinking abilities.

Conclusions

For quality learning, clear learning methods must be applied. The application of learning methods will be more effective if supported by appropriate learning media. Learning media aim to help students to make it easier to understand the concepts being taught by the teacher. One of the learning media in question are learning modules.
Problems such as an exclusive use of textbooks approved by the government, where there is a limited variety of questions, cause that students fail to understand concepts. Throughout the learning process, students often have difficulties in understanding and solving problems. Therefore, critical thinking skills need to be developed in the process of learning, so students are able to solve problems occurring in the context of the educational content. Students need teaching materials that facilitate them to learn independently, which are well structured, stimulate learning, lead to understanding, promote critical thinking skills, develop their character and help them achieve their learning goals.
Teaching materials can be developed in the form of sociocultural-based learning modules. A learning module is an independent learning package that can promote students' learning experiences. They must be planned and systematically designed to help students achieve their learning goals. Students should be taught about the social culture in their environment, so they can better understand problems and solve them. The application of socio-cultural based learning modules into the learning process can encourage students to study hard and understand local culture.
Well-arranged sociocultural-based modules can provide many benefits for students, namely students active involvement in learning activities, as well as attracting students' attention to be involved in the learning activities. Students can measure their own abilities, there is feedback for exercises, which motivates students, so students can learn independently, integrate their local socio-cultural

knowledge, become more mature as students can manage their own time, they are provided with more learning opportunities and their moral qualities are developed, too. The application of sociocultural learning is also very much needed because students in fact still do not know a lot about their own culture, which can even develop students' characters. These findings provide input for future research, namely in the field of the development of sociocultural-based learning modules needed for the development of primary school children's critical thinking skills.

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