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## **HOPE FOR THE FUTURE? THE FUTURE TEACHERS' ATTITUDES TOWARDS THE CORE VALUES OF THE NATIONAL CURRICULUM FRAMEWORK AND TOWARDS EDUCATION SYSTEM**

***Summary:** Near the end of the winter semester of the school year 2018/2019 the attitudes of students of graduate studies at Faculty of Science (PMF), educational studies at Faculty of Science, Department of Physics (PMF-F) and Faculty of Education (UF), Čakovec Department (N=151) were analysed, regarding the core values of the National Curriculum Framework (NOK) and education system. „The questionnaire of attitudes towards values as fundamental components of the National Curriculum Framework“ and „Questionnaire of students' attitudes towards education system“. The aim of the study was to determine if there were any differences among students of UF and PMF-F regarding their attitudes towards the core values of NOK and regarding attitudes towards education system. A significant difference in attitudes was established, regarding identity, solidarity, responsibility and pupil teacher partnership (students of UF and female students in general appreciate these values more) whereas there were no differences regarding acquired knowledge, teaching process and atmosphere. More than 90% of students of UF expressed their wish to pursue a career in school education, while less than 50% of students of PMF-F agreed with them. The results call for further research of students' attitudes and of reasons for decreased interest of students of education studies of PMF-F to participate in school education processes.*

**Keywords:** teachers, students, school

### **INTRODUCTION**

School education prepares pupils and students for their future profession, so a natural question comes up: who educates their teachers, who are the future teachers involved in the process of education? What are their attitudes regarding education system, are they traditional (teaching aimed at the teacher and the teaching subject) or modern (teaching aimed at results or outcomes) (Domović, 2015).

What attitudes do students of education studies have, regarding education system? Students at education studies have already created their own set of core values so the question is which are they? The question is especially important because, as active participants of education system, they are supposed to respect the values of NOK and try to pass these values on their pupils. "Only a teacher who appreciates a child as a person and respects the child's abilities, contributes significantly through his positive influence to the child's self-esteem and successful integration" (Wade and Moore, 1992:25; according to Stančić et al., 2001).

Nowadays, a very small number of students wishes to become school teachers. The reasons might be social attitude towards this profession, low salary, stress etc. (Goddard and Goddard, 2006; Litt and Turk, 1985). Some students have a low opinion of education system because they are aware of the position of the teaching profession in the society and on the other hand they are aware of the effort they have to make to become good and successful teachers. A good teacher should: be paid adequately, have a great knowledge of the teaching process and be aware of the fact that school is a place where children enrich their social and intellectual development (Vargović, 2007). The teaching should be directed towards recognition and development of pupil's own abilities instead of assessment. (Gardner, 1993; according to Goleman, 1995). Buljubašić-Kuzmanović and Gazibara (2015) say that upbringing is closely connected to emotional development and emotional intelligence of pupils, while, empathy, expressing one's feelings, independence, adaptability, the ability of solving problems in cooperation with others, persistence and respect are components of affective education. Goleman (1995) clarifies that emotional and social skills are in decline so emotional intelligence must have priority over cognitive intelligence. Other studies confirm similar results, in the so called western societies in which traditional values are affected (religion, family, education) (Ilišin and Potočnik, 2008; Mrnjauš, 2007). Yesterday's teacher who used to be a leader and a source of knowledge, today has to be a coordinator in the educational process (Sekulić-Majurec, 2005). When new teachers meet their pupils, on the other side of catedra this time, they will pass on their own set of values to the new generations, of course in terms of the subject they teach, similar to the way parents teach their children (Visković, 2013). The teaching process is a framework in which one changes their own set of values, according to Istiniingsih (2016) that process might affect behavioral changes, and every context you find yourself in can become a part of your education, a TV show for example.

## CURRICULUM

The term and the theory of curriculum came to Europe from the USA, where it first occurred in the first half of the 20th century. Very soon it became one of the leading theories of transformation of education system (Cindrić, Miljković and

Strugar, 2010). Ross (2000:8) defines curriculum as “what you learn“, while ethi-mologically it comes from Latin word *curriculum* which means “the course of a race“. It has lately been explained as the course of teaching. Jurić (1993:322) de-fines it as “thorough planning, the structure and evaluation of the teaching process regarding teaching goals, content...“ and Matijević (2002:22) as “a complete co-urse in which goals, content, methods, media, strategy and evaluation are logically and constantly intertwined in various contextual situations“.

Structurally, curriculum can be defined as: national, school, students’, spe-cialized and hidden (Cindrić et al., 2010; Gatto, 2005). The National Curriculum Framework is a base document which includes values, attitudes, content and go-als in educational process, evaluation and assessment of students’ achievements (Ministry of Science, Education and Sport, 2011). It is “national“ because it takes effect nationwide, “framework“ refers to the wide frame it offers for educational processes (Ministry of Science, Education and Sport, 2011). Cindrić et al. (2010) say that national curriculum must be in accordance with the national characteris-tics of a country, regarding the fact that countries cooperate in search for a stronger and better social, economic and civilization development.

School curriculum enables the basic development of a school and a good qu-ality of the teaching process, and differs from one school to another, depending on their characteristics enabling every school to be autonomous when organizing different school activities, teaching methods, strategies and evaluation methods (Topolovčan, 2011). A school curriculum is created, developed and conducted by students, teachers, associate teachers, parents and the local community (Cindrić et al., 2016). A school can be identified and recognized by teaching directed to students instead of teachers (Bognar and Matijević, 2005). The Law of Education (Croatian Parliament, 2008:6) claims that “school curriculum defines planning and instructions of optional subjects, additional classes and tutoring, extracurricular activities, other activities, projects and plans“.

Students’ curriculum can be operational and teaching and is created for indi-vidual approach to students and students’ development (Cindrić et al., 2016). The authors claim that this type of curriculum is subject to changes depending on the circumstances and the results of formative assessment.

Sometimes, if there is some special need a special curriculum can be made, for example if teaching is done in especially difficult circumstances, if there is a need for problem solving; for example the curriculum for introducing pupils to traffic rules, the curriculum of field trips (Antić, 2010).

Specialized curriculum can refer to the curriculum of art schools within the education system or the curriculum for special education needs in semi integration (Ministry of Science, Education and Sport, 2011).

In 1968 in the book *Life in Classrooms* (Jackson, 1968) a term *hidden curricu-lum* appeared which indentified the characteristics of everyday life in a classroom

typical for social interactions. The same author says that hidden curriculum emphasizes specific skills such as: learning to wait patiently, learning to refrain, cooperation, finishing work, expressing loyalty to peers and teachers, developing sense of neatness and punctuality. Dreeben (1967) says that structure of family life cannot prepare children for adulthood, furthermore he claims that pupils are taught to form transient social relationships, submerge their personal identity and accept legitimacy of categorical treatment which are normally adopted at schools, such as independence and competences useful for later life as adults. Hidden curriculum is reflected in the culture of a school, and the culture of a school is reflected in the hidden curriculum (Mlinarević, 2016).

Taylor Gatto (2005) emphasizes that a curriculum which expects children to attend classes seven hours a day cannot but leave indifferent and damaged children, so this way of schooling should be changed. The same author suggests a system of free market which would offer small family and entrepreneur schools, religious schools, agricultural schools and vocational schools which would compete with state schools. Comparing schools to service activities, Olins (2008) says that every service activity makes great effort to make their employees' jobs part of their lives, they develop their employees' skills and competences. In the basis of curriculum planning there lie teachers' competences, which consist of knowledge, skills and attitudes which enable you to finish your work (Lončar-Vicković and Dolaček-Alduk, 2010).

If we compared various curriculums, we would notice significant similarities and differences. Every country curriculum has its specific features according to which goals and strategies are defined. Baranović (2006) says that some countries (Slovenia, Austria) describe their curriculum through school subjects, others (Scotland, Ireland) without describing school subjects, some (Finland, Sweden, Norway) through correlation between the national curriculum and school subjects while others (the Netherlands and the UK) define curriculum through outcomes. The same author says that every curriculum defines general goals, outcomes, main components of the content and the time frame for each subject. "The outcomes are clearly and precisely expressed level of knowledge, skills and competences which were planned ahead and are expected students to acquire and produce at the end of a certain level of education or educational cycle" (Ministry of Science, Education and Sport, 2011:54). The article briefly mentions curriculums of certain countries which excell in literacy level (New Jersey Minority Educational Development, 2018).

Niemi, Toom and Kallioniemi (2012) state that Finnish education system is based on the National Curriculum which is changed every ten years. Sahlberg (2015) says that teaching profession is so popular in Finland that not everyone can become a teacher, which is hard to achieve without knowledge, skills and sense of moral in teaching. Electing the candidates is done in two phases: first a group

of candidates is chosen based on the results of the high-school graduation exam, then they are interviewed about the reasons and motivation for becoming teachers.

Indonesian education system puts emphasis on cultural values in order to encourage development of personal traits of young generations (Istiningsih, 2016). The most important outcomes are: skills, knowledge and character. Public schools put emphasis on civil right education while most religious schools put islamic thoughts and beliefs first (Hays, 2011).

National goals of Australian education system are: equality, excellence and creativity. The curriculum enables the development of successful, self-confident, creative individuals, active and well-informed citizens (Ministerial Council on Education, Employment, Training and Youth Affairs (MCEETYA), 2008). In the late 90s Japanese curriculum was made less complicated by diminishing the extent of students' work at school in order to create more time for family and extra-curricular activities, but also to initiate creativity and self-expression (Hays, 2014). At the beginning of the 2000s a change was made in order to teach children life skills and the importance of self-motivation with the emphasis on thinking instead of memorising. The most relevant values for children are compassion, kindness, social awareness and cooperative-harmonic skills and the classroom rules are: be careful, active, enthusiastic, smile and enjoy life. The values which are important in the National curriculum of the Republic of Estonia are based on ethical values of the Constitution of the Republic of Estonia, General Declaration on Human Rights, Convention on the Rights of the Child and the most relevant documents of the EU (Estonian Ministry of Education and Research, 2011). The core values are at the basis of social and human values. General human values are: integrity, compassion, life respect, justice, dignity; and social values are: freedom, democracy, respect for mother tongue and national culture, patriotism, cultural diversity, solidarity, responsibility and equality of genders.

Croatian National Curriculum Framework especially pays attention to acquired knowledge, solidarity, identity and responsibility (Ministry of Science, Education and Sport, 2011) and these values are explained in the following way:

- Knowledge and education are promoters of the society and every individual and enables better understanding and critical thinking with the main goal of successful private life and work
- Solidarity, which means preparing for sensitivity towards others
- Identity, which through education builds personal, cultural and national identity of every individual, where the emphasis is on acquiring the knowledge of Croatian language and its proper usage
- Responsibility towards social property, nature, work, others and oneself.

The values defined in NOK are actually goals which make sure that all participants are committed to its realisation, which provides pupils with "better navigation through life and prepares pupils for world of unpredictability and changes in which

one should be prepared for lifelong learning“ (Ministry of Science, Education and Sport, 2011:5). According to the results of the Ministry of Science, Education and Sport (2018), teachers estimate that outcomes and content are appropriate for the developmental age of the pupils, while the results of the headmasters' statements about teachers' evaluation show that the most important thing is that children are taught about cultural differences and it is less important that they are sensitive to those differences (Education and Teacher Training Agency, 2019). Croatian teachers claim that they are not well prepared for realisation of the set standards, but they find primary goals for the pupils clear (Peko, Mlinarević and Sablić, 2007). Studies on general values show that Croatian students respect traditional values more, while Austrian students are more prone to public values (media, politics and education) and hedonism (Mrnjaus, 2007). Kuzijev and Topolovčan (2013) state in their study that only persons who are interested in the teaching profession should be allowed to study at educational studies and that during studying they should be questioned on the reasons for choosing the profession. The reason for the prevalent number of female students might be the fact that teaching is perceived as a “women's job“, because there are stereotypes in the society about certain professions and social values (Eccles, 1994; according to Marušić, 2006). There is a belief that girls are less competent in STEM subjects (Eccles, 1989) which is confirmed by similar studies in which males are said to perceive physics as easier to understand and more interesting than women do (Marušić, 2006). Students seem to appreciate teachers' affinities for the new technologies, modern attitudes, empathy and ambition (Jukić and Reić-Ercegovac, 2008), while one of the primary issues in democratic society is nurturing differences (gender differences, socio-cultural differences, SEN students etc) where teachers should make decisions about individual needs in a classroom (Doll, 1996; according to Marušić, 2006). Numerous countries, in their national curriculums, define the values they aspire to, so the goal of this study is to question the differences in attitudes of students in their final year of educational studies towards the core values of NOK and education system.

## **METHODOLOGY**

### **GOALS AND HYPOTHESIS OF THE STUDY**

1. Question the attitudes of students of Faculty of Education (UF) and students of educational studies at Faculty of Science, Department of Physics (PMF-F) towards the values of NOK and towards education,
2. Question the attitudes of students towards the values of NOK and the attitudes of students towards education with regard to gender,
3. Question the attitudes of students towards the values of NOK and the attitudes of students towards education with regard to their intention of working at a teaching position.

H1: All students, regardless of studies, agree with the core values of NOK and the attitudes towards education, so no sharp variations should be observed.

H2: With regard to gender, no sharp variations are expected regarding the attitudes of students towards the values of NOK and the attitudes of students towards education.

H3: Students who are going to work in education system will have higher opinion of the core values of NOK and education.

## PARTICIPANTS

151 student of graduate studies were included in the study (107 students of Faculty of Education (UF), Čakovec Department and 44 students of Faculty of Science, Department of Physics (PMF-F)). Out of 151 students, there were 30 male students (26 of UF and 4 of PMF-F) and 121 female students (103 of UF and 18 of PMF-F).

## INSTRUMENTS

The instruments used in the study were:

Questionnaire of students' attitudes towards education (Brodar, 2014) consisting of 21 statements of a five-point Likert scale, where higher number stands for stronger agreement. Since factor analysis of the questionnaire was not found in the original study (Brodar, 2014), the first step was to do this analysis. KMO test is ,681 and Bartlett test shows considerable variance ( $p < ,05$ ). By checking through Monte Carlo parallel analysis, the analysis of the interrupt diagram and by checking the reliability of the measurement scale, it was decided to keep two factors which confirm 38,44 % variance, based on the Oblimin method where  $N=151$  data subject. Claims with saturation on both factors were excluded, eventually eleven statements were kept, six of them describing the first factor, and five describing the second factor (Table 1). The first factor was named "Pupil teacher partnership" and the other was named "Teaching process and atmosphere". The first factor is best described by statements such as *You should make agreement with pupils and let them choose what to learn and how to do it* and the other by *Pupils should primarily think about the content, and not so much about the way they learn and think*. Between the factors there is a small negative correlation ( $r = -,135$ ). Saturation values lower than ,3 were omitted.

**Table 1** Factor analysis Questionnaire of students' attitudes towards education (N = 151)

Hypothesis	Factor Saturation
<b>Factor 1</b> Teachers students partnership	
You should make agreement with students and let them choose what to learn and how to do it	,686
Students should be allowed to recognize their mistakes on their own, and to think of the way of correcting them	,679
Students should be allowed to self-assess the results of their learning	,659
Students should be allowed to participate actively and independently in the teaching process and to take responsibility for their achievements	,657
It is important to encourage students to solve real problems in real situations, and deal less with material from books	,573
With teachers' help, students should be able to set long term goals of studying, and be less focused on short term goals set by teachers	,421
<b>Factor 2</b> Teaching process and atmosphere	
Students should primarily think about the content, and not so much about the way they learn and think	,790
In every school subject the goal should be acquiring knowledge, and not encouraging the development of child's experience	,750
Grades, rewards, punishment and extrinsic motivation are important components of students' motivation	,468
It is normal for a certain level of fear and negative emotions to be present in students	,418
Humour in teaching process should be avoided because it disturbs students' attention and makes teaching process insufficiently serious	,406

The questionnaire of attitudes towards values as fundamental components of the National Curriculum Framework (Sablić and Blažević, 2015) consisting of 66 statements of a five-point Likert scale, where higher number stands for stronger agreement. The questionnaire is subdivided into four scales, with knowledge, solidarity, identity and responsibilities, as values very much appreciated by NOK. For The questionnaire of attitudes towards values as fundamental components of the National Curriculum Framework (Sablić and Blažević, 2015) the results of the factor analysis have not been found. After a not very successful factor analysis (in which many factors were found defining 1 - 4 variance, interrupt diagram points to two factors, parallel analysis to six factors, and most statements describe many factors at the same time), the method of analysis done in the original study was applied. Cronbach  $\alpha$  coefficient of factor reliability is: knowledge  $\alpha = ,81$ , solidarity  $\alpha = ,88$ , identity  $\alpha = ,93$  and responsibility  $\alpha = ,89$  which show high level of reliability of measurement scales. The value of knowledge is described by

statements such as *Knowledge is the basis of success in life and work*; the value of solidarity is described by *Students should be encouraged to develop positive relationship with others*; the value of identity is described by statements such as *The personal identity of a student should be initiated, encouraged and developed as well as the respect of differences*; the value of responsibility is described by statement *We should develop students' competences of making responsible decisions and understanding the consequences of their decisions*.

The questionnaire of sociodemographic data which described general information about students (gender, studies).

The usage of all questionnaires was approved by authors.

## THE RESEARCH PROCESS

During the winter semester of the school year 2018/2019 students of the fourth and the fifth year of educational studies at Faculty of Science, Department of Physics (PMF-F), Zagreb and Faculty of Education (UF), Čakovec Department were questioned. The total number of correctly filled questionnaires was 151, and additional ten were omitted for not being filled completely. Before the research was begun the approval was granted by the chief of Čakovec department and the chief of methodology subjects at PMF. After the approval the questionnaires were sent through the post office. The students of PMF were given the questionnaires after the practicum in experimental physics and the students of UF after the last lecture in the semester. It took them approximately thirty minutes to answer the questions. All students were aware of the fact that participation was voluntary for the purpose of scientific research and could be terminated at any moment. The data analysis was done in SPSS, v.20.

## RESULTS AND DISCUSSION

More than 90% of students of UF expressed their wish to work as teachers after graduation, while less than 50 % of students of educational studies at Faculty of Science, Department of Physics (PMF-F) agreed with them. With respect to gender, 84,3 % of female students and 53,3 % of male students said that they were going to work in education system. These results, the relation between male and female teachers at schools, was confirmed in real life. Out of 33000 teachers in primary schools, 81,85 % are women (Croatian Bureau of Statistics, 2019). A possible explanation might be that physics students change their decision about the future job after doing student practice at schools, realising that was not what they really wanted (eg. Mišković, 2013). It is also possible that some students started studying physics because they liked it but did not want to choose “more difficult way“, so they chose educational studies instead of scientific studies. Apart from their own experience from student practice, their opinion might be defined by the

experience of ex students in which case their negative experience is stronger than positive ones (Vranešević et al., 2007).

Based on arithmetic mean of values of knowledge, solidarity, responsibility and identity, the results of all students attitudes were shown (Table 2). The results define the ranking of values, the students put responsibility first and then solidarity, identity and finally knowledge. The overall results gathered by students are similar to the results of the research of teachers' attitudes (Sablić and Blažević, 2015) where also responsibility was in the first position, followed by identity and solidarity and finally knowledge. Previous research (Sablić and Blažević, 2015) corresponded to the results about attitudes of students of graduate studies of UF. Students of Physics put responsibility in the first place, the second was knowledge, the third was solidarity and the last identity (Table 4).

**Table 2** Attitudes of all students towards the values of NOK (N = 151)

Value	N	Min	Max	M	SD
Responsibility	151	3,14	5	4,79	,343
Solidarity	151	2,83	5	4,72	,403
Identity	151	2,35	5	4,66	,459
Knowledge	151	3,37	5	4,54	,332

The normality of distribution was tested by Shapiro-Wilk test for small samples, which shows that most distributions was not normally distributed. The Mann-Whitney U test and Spearman correlation coefficient, nonparametric tests, were used for testing the relationship between the variables.

Comparing the relationship between the values of NOK and the attitudes towards education, all values are obviously in a positive correlation, and the attitude towards the pupil teacher partnership in the teaching atmosphere are also in a mid positive correlation with them (Table 3). All the values of NOK and the pupil teacher partnership are in a mildly negative correlation with the teaching process and atmosphere, therefore humour and a certain level of fear should exist in the teaching process, which leads to a possible conclusion that students evaluate pupils through the image of themselves (they used to be pupils until recently), that is why they prefer relaxing pupils to enable their easier participation in the teaching process and the fear should be the sign of awe-inspiring figure of the teacher. The attitudes towards teaching process and atmosphere are in a negative correlation with all the values of NOK and towards the student teacher partnership because the scale is negatively oriented and negative values are used to explain that the goal is encouraging the development of experience but also the way pupils think and learn.

**Table 3** Spearman coefficient of correlation of values of NOK and attitudes towards education

	1.,	2.,	3.,	4.,	5.,	6.
1. Knowledge	1	,587**	,586**	,601**	,350**	-,225**
2. Identity		1	,792**	,708**	,369**	-,224**
3. Solidarity			1	,712**	,423**	-,178*
4. Responsibility				1	,345**	-,265**
5. Partnership					1	-,211**
6. Teaching process and atm.						1

\* $p < ,05$ ; \*\* $p < ,01$ **Table 4** Mann-Whitney U test of independent samples towards the values of NOK and the values of education in respect of the studies

Value		N	M	SD	U	z	p
Knowledge	UF	107	4,55	,31	2296,0	1,530	,126
	PMF-F	44	4,51	,38			
Identity	UF	107	4,79	,31	1095,5	3,649	,000
	PMF-F	44	4,35	,59			
Solidarity	UF	107	4,82	,29	1162,0	-3,827	,000
	PMF-F	44	4,47	,52			
Responsability	UF	107	4,85	,24	1667,0	-2,143	,032
	PMF-F	44	4,65	,49			
Pupil teacher partnership	UF	107	4,33	,48	1588,0	-2,420	,016
	PMF-F	44	4,05	,50			
Teaching process and atmosphere	UF	107	2,46	,68	2328,5	-,471	,638
	PMF-F	44	2,40	,60			

The Mann-Whitney U test of independent samples was used to compare the results of the analysis of the attitudes of students of educational studies at Faculty of Science, Department of Physics (PMF-F) and Faculty of Education (UF), Čakovec Department (Table 4). The results suggest that there is a significant difference in attitudes towards the values of NOK between the students of Physics (PMF-F) and the students of Faculty of Education (UF), regarding their impression of the importance of the values of NOK, in identity, solidarity and responsibility and regarding the pupil teacher partnership.

Hypothesis 1 which assumed that there was no significant difference between the students of UF and the students of PMF-F in respect of their attitudes towards the values of NOK and towards education, regarding their studies, was dismissed. Statistically significant differences occurred in the attitudes towards identity,

solidarity, responsibility and towards pupil teacher partnership. There were significantly higher scores in the evaluation of the students of UF.

**Table 5** Mann-Whitney U test of independent samples towards the values of Nok and towards education regarding gender

Value		N	M	SD	U	z	p
Knowledge	Male	30	4,43	,42	1487,5	-,238	,812
	Female	121	4,57	,30			
Identity	Male	30	4,32	,67	1042,5	-5,220	<b>,000</b>
	Female	121	4,74	,35			
Solidarity	Male	30	4,41	,58	1012,0	-4,998	<b>,000</b>
	Female	121	4,79	,30			
Responsability	Male	30	4,61	,52	1371,5	-2,915	<b>,000</b>
	Female	121	4,83	,27			
Pupil teacher partnership	Male	30	4,03	,56	1299,0	-3,154	<b>,000</b>
	Female	121	4,30	,47			
Teaching process and atmosphere	Male	30	2,47	,67	1714,5	-,105	,916
	Female	121	2,44	,66			

In the next step the difference in attitudes towards the values of NOK and towards education, regarding gender, was analysed (Table 5). All the components of the values of NOK and the values of pupil teacher partnership were valued higher by female students. Although, significant differences were observed towards identity, solidarity, responsibility and towards pupil teacher partnership, while towards knowledge and the teaching process and atmosphere were not observed.

Hypothesis 2 which assumed that there were no differences in attitudes towards the values of NOK and towards education, in respect of gender, was dismissed. The results showed differences towards identity, solidarity, responsibility and towards pupil teacher partnership, in respect of gender, so that female students value every component as more important than male students do.

**Table 6** Mann-Whitney U test of independent samples for male students, towards the values of NOK and values of education, in respect of studies

Value		N	M	SD	U	z	p
Knowledge	UF	4	4,37	,51	44,500	-,460	,646
	PMF-F	26	4,44	,41			
Identity	UF	4	4,45	,67	45,000	-,429	,668
	PMF-F	26	4,30	,68			
Solidarity	UF	4	4,67	,44	32,500	-1,196	,232
	PMF-F	26	4,38	,60			
Responsability	UF	4	4,70	,31	51,500	-,031	,975
	PMF-F	26	4,59	,55			
Pupil teacher partnership	UF	4	4,42	,52	30,500	-1,323	,186
	PMF-F	26	3,97	,55			
Teaching process and atmosphere	UF	4	2,75	,89	42,500	-,583	,560
	PMF-F	26	2,43	,64			

**Table 7** Mann-Whitney U test of independent samples for female students towards the values of NOK and values of education, in respect of studies

Value		N	M	SD	U	z	p
Knowledge	UF	18	4,55	,31	789,0	-1,008	,314
	PMF-F	103	4,51	,38			
Identity	UF	18	4,79	,31	378,5	-4,067	<b>,000</b>
	PMF-F	103	4,35	,59			
Solidarity	UF	18	4,82	,29	502,5	-3,187	<b>,001</b>
	PMF-F	103	4,47	,52			
Responsability	UF	18	4,85	,24	616,0	-2,363	<b>,018</b>
	PMF-F	103	4,65	,49			
Pupil teacher partnership	UF	18	4,33	,48	704,5	-1,631	,103
	PMF-F	103	4,05	,50			
Teaching process and atmosphere	UF	18	2,46	,68	890,5	-,267	,789
	PMF-F	103	2,40	,60			

Based on these results, a question occurred: are the results different because of the gender difference or because of different choice of studies. Therefore a further analysis was done, in which research was done separately among female and male students. The results showed that there were no differences among male students neither in attitudes towards the values of NOK nor in the attitudes towards education (Table 6). There were on the other hand differences among female students in attitudes towards the values of NOK (identity, solidarity and responsibility) (Table 7), which leads to the conclusion that female students are the ones whose attitudes

make the difference, although caution is necessary considering a small number of male students of UF.

**Table 8** Mann-Whitney U test of independent samples for all students towards the values of NOK and the values of education regarding the future career plans

Value		N	M	SD	U	z	p
Knowledge	School job	119	4,56	,31	1754,5	-,682	,495
	Job o. school	32	4,47	,40			
Identity	School job	119	4,74	,36	1159,0	-3,436	<b>,000</b>
	Job o. school	32	4,36	,64			
Solidarity	School job	119	4,78	,34	1405,5	-2,51	<b>,019</b>
	Job o. school	32	4,48	,51			
Responsability	School job	119	4,83	,29	1709,0	-,893	,372
	Job o. school	32	4,83	,29			
Pupil teacher relationship	School job	119	4,27	,51	1773,5	-,597	,550
	Job o. school	32	4,20	,47			
Teaching process and atmosphere	School job	119	2,42	,63	871,5	-5,973	<b>,000</b>
	Job o. school	32	2,52	,73			

After comparing groups of students who were planning to pursue career in education with those who were not (Table 8), the results showed significant differences regarding the values of NOK, identity and solidarity in particular, which were evaluated as more important by students who were planning to work at school. One of the reasons might be the fact that students who wish to become teachers put more emphasis on cooperation and relationship with others. Differences were established in the component of teaching process and atmosphere, too. Students who were not going to work at school thought that content and acquiring knowledge were more important than the way of thinking, encouraging development and enriching children's experience. One of the possible explanations is that people who are not going to work at school probably appreciate other values more than education.

Hypothesis 3 which assumed that there were differences in attitudes towards the values of NOK and the values of education with respect to the plans about the teaching career, was partially accepted. A significant difference was observed towards some values of NOK and education (identity, solidarity, teaching process and atmosphere), which were more appreciated by students who were planning to work at school.

There are many possible reasons why students want or do not want to become teachers. It especially gets into spotlight when students of education studies and Faculty of education do not want to become teachers. A possible solution can be related to intrinsic motivation of some students towards teaching job, which is in a

positive correlation with the quality perception of education studies (Bruinsma and Jansen, 2010). A key reason why some students do not want to become teachers might be the teacher's own perception that they are not appreciated by politicians, media and society. (Education and Teacher Training, 2019). Students who wish to become teachers very often consider themselves as experts in their field and they want to teach others what they already know (Rones, 2011).

Since the main thesis of the study was to question the attitudes of students towards the values of NOK and education, especially with the very common thesis that education system is bad at developing a system of set values and social components (Jukić, 2013), a question arises as to when these values disappear if they are possessed by a teacher. One of the reasons could be the society and the hectic way of living. The results imply that there is a strong gender identity in students, male and female, which, according to studies starts developing in early adolescent age (Zarevski and Gačnik-Del Negro, 1998), while it keeps developing throughout lifetime which means it is subject to change (Erikson, 2008). Also, it seems that female and male students have different social and traditional values rooted in their character. Of course, we should not ignore the fact that other values, responsibility, finances, knowledge etc., are passed on from one generation to another (Visković, 2013), but these were not researched this time. Furthermore, the results of this research can be related to the values which are important to individual persons in order to reflect upon themselves (Marušić, 2006). Students who are not money-oriented when choosing a career (and in this study it could be applied to those wishing to have a career in education) are socially oriented but also aspire to some higher goals (Engelberg and Sjöberg, 2006).

It is encouraging that students of educational studies give high grades to the values of NOK nad education. It is supported by research in other countries which made these values part of their national curriculum and where teachers proved to be their main promoters (Montgomery and Smith, 2001; according to Sablić and Blažević, 2015). So far, studies have proved the importance of nurturing differences in society and at school (Doll, 1996; according to Marušić, 2006). The results of this study show that students value high the promotion of democratic values, cultural heritage and cultural origin of pupils, all in the form of values of NOK, the value of identity, which is opposite to western social values which do not appreciate family, education etc. (Ilišin and Potočnik, 2008; Mrnjauš, 2007). The results of the study, emphasized by other studies as well, offer optimistic view that new sort of teachers are arriving with modern attitudes towards teaching which put pupils and applying of knowledge in the centre of the teaching process, and are not content and teacher centered (eg Domović, 2015).

## CONCLUSION

The aim of this study was to analyse the attitudes of future teachers towards the values of the National Curriculum Framework (NOK) and the values of education. The research was done among students of educational studies at Faculty of Science, Department of Physics (PMF-F) and Faculty of Education (UF), Čakovec Department. The research established differences in attitudes towards some values of NOK (identity, solidarity, responsibility) and towards values of education, in regard to the study group they attend. Those values were more appreciated by students of the Faculty of Education. Furthermore, students who were planning a career in education appreciated identity, solidarity, teaching process and atmosphere more than students who were not. The results regarding gender showed that female students show more appreciation for identity, solidarity, responsibility and pupil teacher partnership. The overall results imply that the gap between the groups could have occurred because of planning career in education and/or because of gender and not because of the study group they chose.

This study shows that attitudes of all students towards the values of NOK and education are at a high level. It gives hope for the future of education system in which new teachers think of this profession not as traditionally teacher based but as modern, aimed at outcomes and other values not necessarily related to knowledge. In educational system, pupil teacher relationship is very important. Teacher has a key role, he/she is a role model who gives support in developing various forms of behaviour socially accepted.

## LIMITATIONS AND IMPLICATIONS OF THE STUDY

There are no known studies about Croatian students' attitudes towards the values of NOK or towards education in this way, so it is hard or impossible to make comparisons to other studies. It would be necessary to do more research and to include students from other education studies (other departments of PMF, Faculty of Humanities and Social Sciences, Art and Music Academy etc). This study was limited by the number of students at a particular study group (Physics for example) and the number of male students at UF, where the number is small in general. Although, this study included a significant number of male students of those studies. It would be important to make a longitudinal research about the same attitudes after years of working at school but also the attitudes of people working outside the education system.

It is surprising that knowledge was put at the final position and that could be a good start for new researches. Regarding the career plans, it could be useful to research the list of study groups of students whose first choice was not education, but also what happens with the student attitudes after graduating at education studies.

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