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Full Length Research Paper

The relationship between sportsmanship level of secondary school students and their success regarding the religious culture and knowledge of ethics course

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This study aims to exhibit how the sportsmanship level of secondary school students relates to their success regarding the religious culture and knowledge of ethics course (RCKEC). The research was made on 609 students attending public schools in Erzincan city center during 2016 to 2017 academic year. "Physical Education Course Sportsmanship Behavior Scale" (PECSBS), a form for collecting personal details and RCKEC success averages obtained using the e-school system were utilized in the study. Scores of students that they received from the sportsmanship scale were examined by their school types, grades, genders and favorite sports. Besides, a Pearson correlation analysis was made between sportsmanship scores of the students and their RCKEC success averages. Data showed a significant level of differentiation in physical education course sportsmanship behaviors in terms of school type (in favor of regular secondary schools), gender (in favor of females), grade (against grade 8 students) and favorite sport (in favor of sports without physical contact). Furthermore, a positively significant relation was observed between physical education course sportsmanship behaviors (factor of avoidance negative behavior and total sportsmanship averages) and RCKEC success averages. Inclusion of activities supporting sportsmanship practices into religious culture and knowledge of ethics courses with an interdisciplinary education approach which appeared to be beneficial. On the other hand, low sportsmanship scores were obtained for religious vocational secondary schools compared to regular ones. The argument that the fact that religious vocational secondary schools have only one hour of physical education course per week, restricts sports culture learning outweighed.

Key words: Physical education course, sportsmanship behavior, religious culture, knowledge of ethics course.

INTRODUCTION

Physical educators always remark the positive effect of sports on character and moral development (Bredemeier, 1995; Clifford and Feezell, 2010; Laker, 2001). However,

virtue in sports that is intended by sports in terms of ethics has been substituted by violence, irregularity and unfairness today. Currently, where adverse attitudes and

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behaviors are constantly increasing, importance of sportsmanship has increased even more. Whereas sportsmanship is defined in a number of ways, it basically describes ethical behaviors displayed in sports environment. Given that fair play is the same thing as sportsmanship, the definition made by Yıldırım, (2005) can be used for both formal and informal sports environments; therefore, it can be taken as a reference. According to the definition, fair play manifests itself in the efforts of players during competitions as regards obeying rules patiently, consistently and consciously even under harder conditions, refusing unfair advantages for the sake of equality of opportunity, refusing to benefit from unfair advantages of opponents, considering opponents as individuals and partners with equal rights who make the game meaningful and appreciating them instead of considering them as enemies (Yıldırım, 2005). Gill (2000) defines a sportsmanship person as a player who can lose the game and accept defeat without complaining; someone who acts in a true, generous and kind way against his/her opponent, and who do not display illegal behaviors to win.

Unvirtuous behaviors which have become popular in sports environments have also affected schools. Particularly, after the 1970s, the socializing effect of physical education courses has been seen to be coming short in motivating behaviors that are in compliance with fair play (Yıldırım, 2005). Education in primary and secondary schools is responsible for establishing the sportsmanship behaviors (Papp and Prisztóka, 1995). Green (1997) argues that the contribution of sports to social development will be reduced if efforts towards increasing the sportsmanship quality are neglected. Many researchers are of the opinion that sportsmanship and moral development are only possible through systematic programs (Green and Gabbard, 1999; Yıldırım, 2005). Sportsmanship education is included in the physical education course syllabus. However, its reflection on students' behaviors is not at a desired level. In this sense, it is crucial to handle sportsmanship along with its all aspects and determine all elements that contribute to sportsmanship positively. Particularly, various programs have been enforced in US towards enhancing sportsmanship orientation. Examples include the Sports Education Model (Siedentop et al., 2004), "Play Hard, Play Fair, Play Fun" (PHPPFF) program (Ellis et al., 2004), and STAR sportsmanship Education Module (Ford, 2009). Efficacy of these and other similar programs has also been tested by experimental studies. In general, positive contributions of these programs to sportsmanship behaviors have been observed (Arthur-Banning et al., 2007; Blair, 2014; Cecchini et al., 2007; Glapa et al., 2016; Hassandra et al., 2007; Hestie and Sharpe, 1999; Lodl, 2005; Wells et al., 2005, 2008; Bronikowski et al., 2014).

Using the interdisciplinary education method, other

courses can be utilized as well in establishing a sports environment encompassing love, respect and observance of rules which is the primary aim of sportsmanship. There is no study on the relationship between the courses in schools and the sportsmanship. A review of the content of religious culture and knowledge of ethics course showed that such course supports the sportsmanship idea. Indeed, ethical issues constitute an important part of the religious culture and knowledge of ethics course syllabus. In this context, education on the importance of national and moral values for personal development and social peace, usage of rights and freedoms, living in peace, being an honest and reliable person, and always forgiving have been intended in such field. Besides, through such learning field, a student realizes that to love and to be loved in general is a religious, moral and social value; and that ill feelings and hate eliminate love, peace, brotherhood and friendship, and he/she tries his best to live amicably (MEB, 2010). According to Berger (1993), religion, which is one of the most important components of social reality, has a central role in determination of behaviors of the social structure. Concordantly, Keskin (2004) opines that providing a symbolic union within a society is one of the most important social functions of religion. Religious principles play an important role in the formation of characters in students, such as sharing, tolerance, and outright assistance to those in difficulty. Moral advices for both the individual and the society are reiterated by means of Quranic stories as well as lives of prophet Muhammed and other remarkable historical persons contained in the syllabus of the religious culture and knowledge of ethics.

In this sense, the significant role of the religious culture and knowledge of ethics course in displaying sportsmanship behaviors provided the inspiration for this research. Although only knowledge dimension of the religious attitude was discussed in the study, hereby, it is expected that such dimension should predict also its effective and behavioral dimension. The main purpose of the research was to exhibit how sportsmanship level of secondary school students relates to their success regarding the religious culture and knowledge of ethics course. In addition to that, sportsmanship scale scores of students were examined in terms of their school types, genders, grades and favorite type of sports in physical education courses.

METHODOLOGY

Method

The relational survey method was used as the quantitative research method. Survey models are appropriate for studies which aim to describe past or present situations in the way they occurred. The relational survey method was also suitable for the current research, since it is used for studies aiming to specify the presence or degree

of covariance among two or more variables, which is among the general survey methods (Cohen et al., 2000; Karasar, 2003).

Participants

The study group consisted of totally randomly selected 609 students (310 females and 299 males) from regular and religious vocational secondary schools, during the 2016 to 2017 academic year in Erzincan city center. Weekly, there are two hours of physical education and sports course in regular secondary schools and one hour in religious vocational secondary schools, which are included in the study. There are weekly two hours of Religious Culture and Knowledge of Ethics Course in both types of schools. Religious vocational secondary schools in Turkey are preferred by students especially those who desire to receive religious education, and the number of courses related to religion is more compared to regular schools. Socio-economical characters of the included students were close. Grades 6, 7, and 8 students were included in the study. The age range of the students in this period was 12 to 14. The study was conducted after obtaining the required permits from the Ministry of Education and written consents from parents.

Instruments

A "Personal Details Form" designed by the researcher, a "Physical Education Course Sportsmanship Behavior Scale (PECSBS)" developed by Koç (2013) and "Religious Culture and Knowledge of Ethics Course" were used to obtain success averages in the study (100-point grading scale), using the e-school system. The 'Personal Details Form' was prepared with the purpose of collecting details regarding the group of study and included questions about the students' school type, gender, grade and favorite type of sports in physical education courses. Type of sports were grouped in two categories namely team sports which include physical contact with opponents (football, basketball, handball, etc.) and sports without physical contact (volleyball, badminton, table tennis, etc). The "Physical Education Course Sportsmanship Behavior Scale (PECSBC)" developed by Koç (2013), consists of 22 items and is a 5-point Likert scale ranging from "never" (1) to "always" (5) answers. The scale consists of 2 factors, "Realization of Positive Behavior" (RPB) and "Avoidance Negative Behaviors" (ANB). "I help my opponent in getting up if he/she falls down" is an example of the "Realization of Positive Behavior" factor and "I make fun of the members of the rival team whenever I win them during the physical education course" is an example of the "Avoidance Negative Behavior" factor. The ANB factor items are calculated in a reverse scored. Increased averages mean an increased sportsmanship level. Goodness of fit indices of confirmatory factor analysis of PECSBC ($n = 609$) ($\chi^2/df = 2.39$, RMSEA = 0.048, NNFI = 0.96 and CFI = 0.96) were calculated to be at a good and acceptable level. The internal consistency reliability (Cronbach Alpha) was calculated as 0.79 for ANB factor, 0.83 for RPB factor, and 0.86 for the entire scale. Total score obtained from the entire scale was defined as "Total Sportsmanship Behavior (TSB)".

Data analysis

The obtained data were checked to see if they were suitable for parametric analyses or non-parametric ones (kurtosis, skewness values, scattering and histogram chart), and the equality of the group variances (Levene F test) were checked as well. The t-test and Pearson Correlation test which are among parametric analyses were applied for data with normal distribution, and Mann Whitney U

and Kruskal Wallis tests were applied for those without normal distribution. SPSS 22 and LISREL 8.7 software were used to evaluate the data.

RESULTS

This part includes results and interpretations regarding main and sub-purposes of the research. First of all, sportsmanship scores of the students were examined by independent variables and then, the relationship between sportsmanship averages and religious culture and knowledge of ethics course successes of the students was tested.

Significant differences were determined among students' sportsmanship behaviors (except RPB factor) by school types ($p < 0.01$). Sportsmanship behaviors of students in regular secondary schools came out to be significantly better compared to students in religious vocational secondary schools (Table 1).

In the analyses made separately for regular and religious vocational schools groups, a significant difference was observed in ANB factor and total sportsmanship averages of students by their gender ($p < 0.01$). No effect of the students' gender on their sportsmanship behaviors was observed in terms of the RPB factor ($p > 0.05$) (Table 2).

Significant differences were observed among sportsmanship behaviors of students by their grades ($p < 0.01$). A Mann-Whitney U test was conducted to discover the source of the mentioned significant difference and it showed that sportsmanship behaviors of grade 6 and grade 7 students were significantly better than those of grade 8 students (Table 3).

Significant differences were determined for ANB and TSB scores of students by their type of favorite sports ($p < 0.01$). Sportsmanship behaviors of students which are interested in sports without physical contact mostly came out to be better than that of students who are interested in team sports which include physical contact with opponents. No effect of the students' type of favorite sports on their sportsmanship behaviors was observed in RPB factor ($p > 0.05$) (Table 4).

A positive significant relationship was observed between religious culture and knowledge of ethics course averages of students and their avoidance from negative behavior scores ($r = 0.13$, $p < 0.01$) and total sportsmanship behavior scores ($r = 0.11$, $p < 0.01$). No significant difference between religious culture and knowledge of ethics course averages of students and their realization of positive behavior scores was found ($p > 0.05$) (Table 5).

DISCUSSION

In this part sportsmanship scores of students are discussed in terms of independent variables and religious

Table 1. Comparison of sportsmanship scores of students by their types of school (Mann-Whitney U).

Factor	Types of school	N	Min	Max	Median	Mean rank	U	p
Realization of Positive Behavior	Regular	310	1.55	5.00	4.36	318.68	42105.500	0.051
	Religious vocational	299	1.64	5.00	4.18	290.82		
Avoidance from Negative Behavior	Regular	310	2.64	5.00	4.45	324.74	40227.000	0.005**
	Religious vocational	299	1.45	5.00	4.36	284.54		
Total Sportsmanship Behavior	Regular	310	2.27	5.00	4.36	325.96	39848.000	0.003**
	Religious vocational	299	2.14	5.00	4.22	283.27		

**p<0.01.

Table 2. Comparison of sportspersonship scores of students by gender (Mann-Whitney U).

Type of school	Factor	Gender	N	Min	Max	Median	Mean rank	U	p
Regular	Realization of Positive Behavior	Female	144	2.18	5.00	4.41	161.25	11124.000	0.292
		Male	166	1.55	5.00	4.27	150.51		
	Avoidance from Negative Behavior	Female	144	2.64	5.00	4.64	186.26	7522.500	0.000**
		Male	166	2.82	5.00	4.36	128.82		
	Total Sportsmanship Behavior	Female	144	2.45	5.00	4.45	174.47	9221.000	0.001**
		Male	166	2.27	5.00	4.24	139.05		
Religious Vocational	Realization of Positive Behavior	Female	167	1.64	5.00	4.18	149.96	11015.500	0.993
		Male	132	2.27	5.00	4.18	150.05		
Religious Vocational	Avoidance from Negative Behavior	Female	167	2.00	5.00	4.55	172.60	7248.500	0.000**
		Male	132	1.45	5.00	4.18	121.41		
Religious Vocational	Total Sportsmanship Behavior	Female	167	2.14	5.00	4.36	162.55	8926.500	0.005**
		Male	132	2.68	5.00	4.09	134.13		

**p<0.01.

Table 3. Comparison of sportsmanship scores of students by grade (Kruskal Wallis).

Factor	Grade	N	Min	Max	Median	Mean rank	Chi-Square	p	Mann-Whitney U
Realization of Positive Behavior	6	200	1.64	5.00	4.36	328.05	29.533	.000	*(6>8), *(7>8)
	7	195	1.82	5.00	4.45	338.70			
	8	214	1.55	5.00	3.91	252.75			
Avoidance from Negative Behavior	6	200	1.45	5.00	4.45	322.83	20.339	.000	*(6>8), *(7>8)
	7	195	1.64	5.00	4.55	334.08			
	8	214	2.00	5.00	4.27	261.84			
Total Sportsmanship Behavior	6	200	2.14	5.00	4.36	328.49	35.599	.000	*(6>8), *(7>8)
	7	195	2.55	5.00	4.45	343.65			
	8	214	2.23	5.00	4.09	247.83			

**p<0.05.

Table 4. Comparison of sportsmanship scores of students by their type of favorite sports in physical education course (t-test).

Factor	Groups ^a	N	Mean	Sd	t	p
Realization of Positive Behavior	1	306	4.12	0.66	-0.878	0.380
	2	303	4.17	0.71		
Avoidance from Negative Behavior	1	306	4.18	0.62	-5.423	0.000**
	2	303	4.44	0.55		
Total Sportsmanship Behavior	1	306	4.15	0.53	-3.499	0.001**
	2	303	4.30	0.55		

**p<0.01 (^a: 1= team sports which include physical contact with opponents, 2= sports without physical contact).

Table 5. The relationship between sportsmanship scores of students with their religious culture and knowledge of ethics course success averages (Pearson).

Factor	1	2	3	4	
N=609	1. Realization of Positive Behavior	-	0.44**	0.87**	0.06
	2. Avoidance from Negative Behavior	-	-	0.82**	0.13**
	3. Total Sportsmanship Behavior	-	-	-	0.11**
	4. Religious Culture and Knowledge of Ethics	-	-	-	-
	X	4.14	4.31	4.22	89.64
Sd	.69	0.60	0.55	8.52	

**p<0.01.

knowledge course success averages.

Significant differences were determined among students' sportsmanship behaviors (except RPB factor) in terms of school type. Sportsmanship behaviors of students (in both gender) in regular secondary schools were better compared to students in religious vocational secondary schools (Table 1). There was no literature review study on sportsmanship of students by school types. Weekly hour of physical education courses being one is supposed to have an effect on low sportsmanship levels in religious vocational secondary schools. A study on difference of sportsmanship levels of students from different cultures which was conducted in 3 cities from different countries has failed to show a significant difference between students taking 2 hours of physical education courses per week and those taking 4 hours per week (Broikowski et al., 2014); however, teaching only one weekly hour of physical education course in religious vocational secondary schools is considered to have caused a problem in terms of providing a sufficient level of sports culture. Although a relevant study could not be found on this subject, it is thought that better sportsmanship levels in regular secondary schools can be explained after instructing sports culture at a relatively better level in these schools.

In the analyses made separately for regular and

religious vocational schools groups it was found that ANB factor of sportsmanship behaviors and total sportsmanship averages of students displayed a significant difference in terms of their gender. In terms of the RPB factor, students' gender failed to display any effect on their sportsmanship behaviors (Table 2). Likewise, a significant difference in realization of positive behavior could not be found in high school students according to Koç (2017b) and for secondary students according to Sezer et al. (2015). However, they found that the scores of female students came out to be significantly higher to avoid negative behavior and in total sportsmanship averages. It can be concluded that the factor of avoiding negative behavior predicts the gender difference in sportsmanship better. Some other studies by Esentürk et al. (2015) and Türkmen and Varol (2015) have reported that the level of sportsmanship behaviors of female students is significantly higher compared to males. Topan's (2011) study has shown that female students display sportsmanship behaviors in a more sensible way in winning and losing situations compared to male students. Female students appear to act in a more suitable way in terms of ethical attitudes and behaviors which are supposed to arise from the fact that their upbringing manner always urged them to conform to rules. This keeps them a step away from negative

behaviors.

Students' sportsmanship behaviors by their grades displayed significant differences. A Mann-Whitney U test was conducted to discover the source of the mentioned significant difference and it showed that sportsmanship behaviors of grades 6 and 7 students were significantly better than those of grade 8 students (Table 3). A literature review has revealed that as age and grade increase, sportsmanship behaviors weaken (Koç, 2017b). In their study, Koç and Tamer (2016) have identified that as age and grade increase sportsmanship displaying level of female students reduces. Tsai and Fung (2005) have stated that older high school basketball and volleyball players attach less importance to sportsmanship compared to younger ones. On the other hand, Shields et al. (2007) have failed to find a significant difference between sportsmanship behaviors of grades 5 to 8 students. However, the sportsmanship level reduces as grade increases. As age advances, fighting spirit and competitive attitude of children increase; whereas still entertaining part of games is important for younger age groups. On the other hand, some studies have emphasized that experiences gained from negative social environment reduce the sportsmanship level (Nucci and Young-Shim, 2005). Furthermore, some other studies have discovered that grade of students do not have any effect on sportsmanship behaviors (Hacıcaferoğlu et al., 2015; Kayışoğlu et al., 2015; Koç, 2017a).

ANB and TSB scores of students displayed significant differences in terms of their favorite sports. Sportsmanship behaviors of students who were interested in team sports without physical contact came out to be better than that of students who were interested in team sports which include physical contact with opponents. Regarding the realization of positive behavior factor, there was no observed effect of the students' favorite sports on their sportsmanship behaviors (Table 4). A literature review has supported the findings of the research that sportsmanship has been differentiated for students and athletes according to their type of sports. Some studies have shown that sportsmanship levels of people engaged in individual sports are poorer (Lee et al., 2007), sportsmanship behaviors of high school students interested in team sports without physical contact are better compared to those engaged in other sports branches (Koç and Güllü, 2017); and sportsmanship scores of high school students interested in volleyball (sports without physical contact) are significantly better than those interested in football (sports with physical contact) (Esentürk et al., 2015). Likewise, Koruç and Bayar (1990) and Güner (2006) have shown that individual sports players are more aggressive than those engaged in team sports, and Lee et al. (2007) have discovered that those engaged in individual sports have a more negative ethical decision taking attitude compared to those engaged in team sports. Nixon (1997) has found

that university students engaged in sports with physical contact display a higher level of aggression and toughness outside school. Bloom and Smith (1996) have argued that a high level of physical contact in sports affects players' ethical judgement adversely. In contrast, Akandere et al. (2009) have failed to discover a significant difference among ethical judgment levels of secondary school students in terms of the sports branch they are engaged in. Behaviors such as verbal teasing and committing foul are more common in tackling sports and team sports with physical contact due to their nature. It is understood that as level of contact increases in a game so does the potential of players or students to display antisocial behaviors.

A significantly positive relationship was discovered between physical education course sportsmanship levels (ANB and TSB) of secondary school students and their success levels in the religious culture and knowledge of ethics course (Table 5). A literature review did not reveal any similar study. Only Kaya (2006) has stated a positive effect of RCKEC success on ethical behaviors. Teaching contents of religious culture and knowledge of ethics course to students makes them more sensible in terms of displaying a number of ethical behaviors (MEB, 2010). Students are expected to learn forgiveness, respect, tolerance, fairness and honesty, and it is expected that this would contribute to the sportsmanship behaviors desired within scope of the physical education course when they reflect these characters on their behaviors. Sportsmanship personality formation during physical education courses aims at formation of similar characters by individuals. The parallelism of ethical perspectives of these two courses has reflected on the result obtained from the study. In fact, Ekşi (2003) argues that morals and values in education is possible in primary schools through courses like Turkish, social sciences, physical education, music, painting, vocational training, and even through science and mathematics. All values such as sportsmanship should be handled with an interdisciplinary perspective.

The study had some limitations. Firstly, the scope of the group of study was limited. Secondly, only a scale was used as a means of measurement sportsmanship and results were limited to the answers provided. Thirdly, other data collection tools such as the observation method, etc., could not be used to make in depth investigation. And finally, since a limited number of studies were available on the subject of the research both in domestic and international literature, it was not possible to make comparisons at a sufficient level.

In general and as a summary, the study showed that sportsmanship levels of regular secondary schools students are higher compared to religious vocational secondary schools students, sportsmanship levels of females are higher compared to males, sportsmanship level decreases as the grade of students advances, and

sportsmanship levels of students who are mostly interested in sports without physical contact are higher compared to those interested in team sports which include physical contact with opponents. Besides, a significantly positive relationship was observed between sportsmanship levels of secondary school students and their religious culture and knowledge of ethics course successes.

The study revealed that physical education and physical education courses play an important role in teaching sports culture to students yet under the expected level. A sufficient level of sports culture is not delivered in religious vocational schools, and it is recommended to increase the number of weekly hours of physical education courses, which is currently one, in these schools. Inclusion of activities supporting sportsmanship practices in religious culture and knowledge of ethics courses with an interdisciplinary education approach appeared to be beneficial.

Researchers are recommended to investigate the relation of sportsmanship with other relevant courses, in addition to its relationship with religious culture and knowledge of ethics courses. The relationship between sportsmanship and religious knowledge in various cultures is worth researching as well.

CONFLICT OF INTERESTS

The authors have not declared any conflict of interests.

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Full Length Research Paper

Mind frames are more important than structures: Questions of educational reform and people as the answer

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A lot of structural reforms of education system have been and are being discussed at length in the general public and among experts. Many hope this discussion will lead to progress in the form of structural measures and frequently point to Pisa as evidence in support of this hope. However, educational research beyond Pisa shows that in many cases, this hope remains just that, a hope, and that there is no causal relationship between structural measures and the desired success. In the present article, an attempt was carried out to reveal this relationship and point out that the core of successful teaching and the central goal for teacher education are the mind frames of the teachers.

Key words: Teacher education, mindframes, expertise.

INTRODUCTION

“When we take people . . . merely as they are, we make them worse; when we treat them as if they were what they should be, we improve them as far as they can be improved.” (Johann Wolfgang von Goethe)

Six years of elementary school instead of four years, a two-tiered system instead of a three-tiered system, a comprehensive school with internal differentiation between students as a new path, keeping children together at the same school longer like in Finland, all-day schools and day care centers for all—these and similar structural reforms of education system have been and are being discussed at length in the general public and among experts (Zierer et al., 2016).

Many hope this discussion will lead to progress in the form of structural measures and frequently point to Pisa

as evidence in support of this hope. However, educational research beyond Pisa shows that in many cases, this hope remains just that, a hope, and that there is no causal relationship between structural measures and the desired success (Brodkorb, 2016; Meyerhöfer, 2016; Nida-Rümelin, 2016).

In other words, what remains in the end are reasons, but there is no evidence to support them. In the present article, an attempt will be made to reveal this relationship. To do so, the study will first take four structural reforms as an example to demonstrate that the corresponding measures alone achieve little, and that what really matters is the protagonists who bring these structures to life.

As the study will demonstrate in a second step, the difference between experience and expertise plays an

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important role in this process (Zierer, 2015). In this context, the study will become evident that what is more important than the amount of years one has spent in the teaching profession or the amount of work one puts into it is one's mind frames (Hattie, 2009, 2012). On this basis, factors for successful teaching and learning processes will be named. Finally, in the third and last step, conclusions with regard to structural reforms, teacher education, and educational policy will be drawn.

Four examples of structural reforms of education that achieve little on their own

As described earlier, the discussion on education, both in the general public and among educational scientists, is characterized strongly by calls for structural reforms. On closer inspection; however, these reforms cannot achieve that which is expected of them. In the following, the study would like to single out – with the help of a hermeneutical approach (Danner, 1998) – four examples to illustrate this:

1. All-day schools
2. Comprehensive schools
3. Day care centers, and
4. New media.

All-day schools

The aims of all-day schools include optimizing the success of the learning process and promoting it, irrespective of the socioeconomic status of the child's parents. This demand advances vehemently by various people at regular intervals.

However, just because a demand is advanced repeatedly does not make it truer. The empirical evidence, at any rate, does not support it, as the example of German schools shows: A careful reading of the "Studie zur Entwicklung von Ganztagschulen" (StEG) (Study on the development of all-day schools) by Klieme et al. (2010) shows that there is no evidence for the notion that all-day schools help children learn better; nor do they offer better support for children from educationally disadvantaged households, and thus enable them to catch up with children from educationally privileged households.

Whereas the data from the first two rounds of the study still showed minor positive effects of attendance at all-day schools on the development of grades in German and mathematics, mere attendance no longer has an effect in the long term. The benefit for students enrolled in all-day schools over those not enrolled in all-day schools found originally is therefore not enduring. Even in the case of youths from lower social strata or with a migration

background, there is no evidence for an effect of mere attendance at an all-day school on their academic achievement over four years; thus, there is no compensatory effect for educationally disadvantaged student groups in this regard (Klieme et al., 2010).

The authors themselves allude to a reason for this result: Children from educationally advantaged milieus are better equipped to take advantage of the offerings of an all-day school than are those from educationally disadvantaged milieus. The core message of the study is thus of a different nature: Longer school days alone—at least within the scope of the current, wide-ranging practice—are usually not a sufficient means of providing specific support. The study makes it clear that what is influential is rather the quality of the school and its offerings (Klieme et al., 2010).

Thus, the most important aspect is the quality of the instruction and therefore the competence of the protagonists, who spend more time with one another than at a half-day school. This competence obviously will not materialize out of thin air simply because a school switches from a half-day to an all-day format.

Comprehensive school

The aims of the comprehensive school are similar to those of the all-day school. For example, it also has the goal of eliminating educational disadvantages by means of structural reform. The study "Lebensläufe ins frühe Erwachsenenalter" (LifE) ("Life histories into early adulthood") by Helmut Fend (Fend, 2008) calls into question the suitability of such schools in the German speaking world for achieving this, as Figure 1 illustrates.

Consequently, it does not matter whether children attend a school in a three-tiered school system, a special school or a comprehensive school. In all of these cases, there is a high correlation between socioeconomic status and educational attainment, which brings Helmut Fend to the following conclusion; first, they speak for the notion that, the resources of the family has at its disposal for taking the best possible care of their children are what ultimately prevails in various educational systems.

Accordingly, families from the educated classes should not worry about not being able to attain their educational goals for their children at comprehensive schools. Parents always see the particular educational system as the instrument to provide for their children in the best possible way. Family researchers will undoubtedly be impressed at the large role intergenerational transmission plays here. The claim that the family has lost significance in the modern age is not plausible in light of these results (Fend, 2008).

Here again, the core message is important and helpful: Whether educational equity can be achieved or not depends first and foremost on the protagonists. In a word: A teacher who is prejudiced toward a certain group

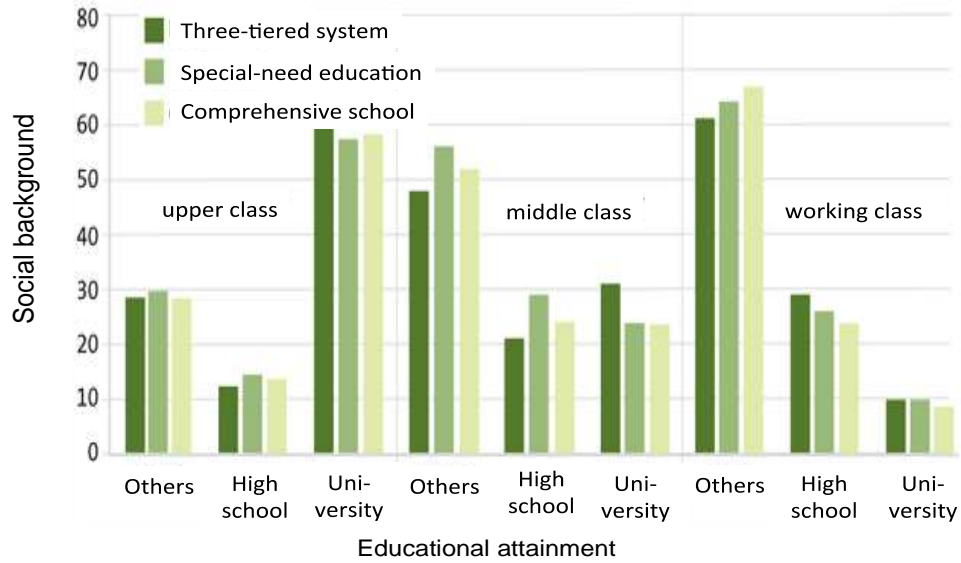


Figure 1. Influence of social background on educational attainment depending on school type.

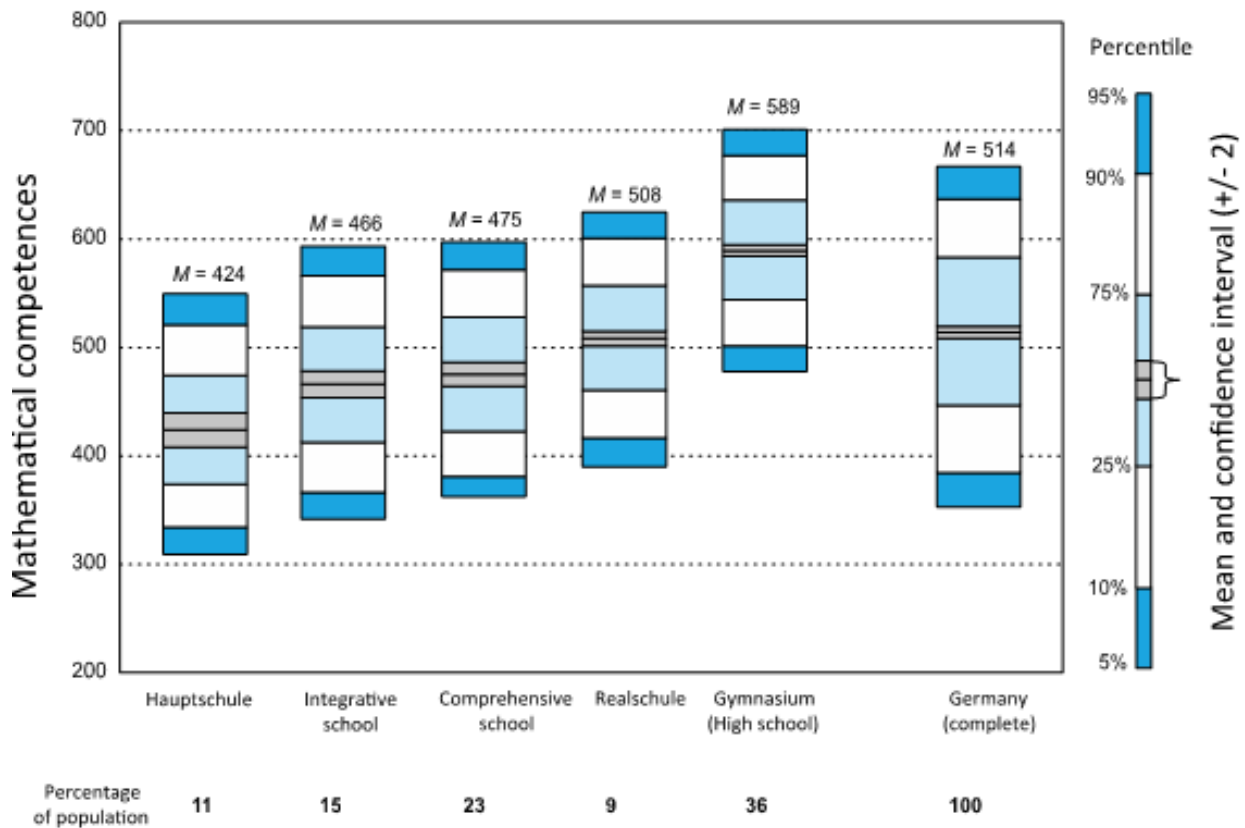


Figure 2. Percentile bars for mathematical competence in Germany by school type.

of students will not be influenced in his or her mind frames by the school system alone. Finally, a look at the promotion of specific subject matter knowledge yields the same result: The comprehensive school cannot stand up

to a multi-tiered school system, much less leave it behind. The results from PISA 2012 provide clear evidence for this here with regard to mathematical competence (Prenzel et al., 2013) (Figure 2).

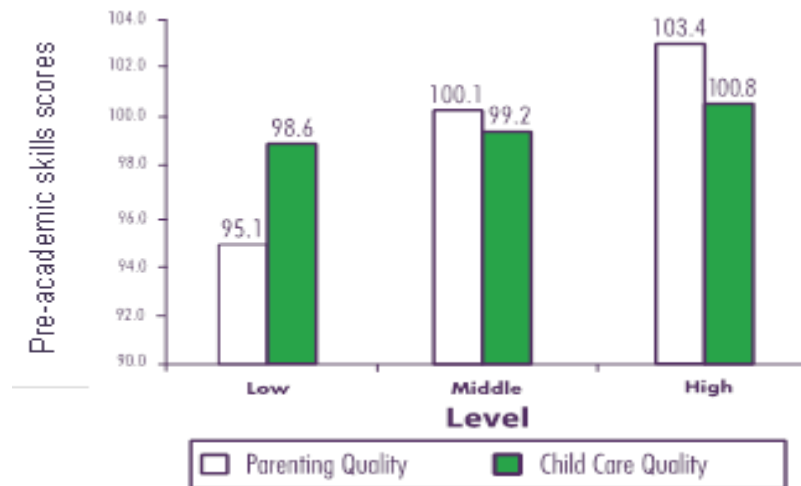


Figure 3. Parenting quality versus child care quality: Effect on pre-academic skill scores.

Day care center

Anyone who has followed educational policy debates in Germany over the past ten years must have the impression that the best education for children takes place at day care centers. That might be true in individual cases, but as a sweeping statement it does not hold water.

The decisive factor is namely not the amount of time a child spends at an educational institution but the quality of the relationship between the children and the people who are taking care of them. It should be obvious that in normal cases no teacher-child relationship can compete with the quality of the parent-child relationship. This is the main message of the “study of early child care and youth development” conducted by the National Institute of Child Health and Human Development (NICHD) (Eunice Kennedy Shriver National Institute of Child Health and Human Development, NIH, DHHS, 2006): “Many family features are more strongly and more consistently linked to child development outcomes than child care features for children up to age 4 1/2 (and even into kindergarten).

The following characteristics predicted children’s cognitive/language and social development: parents’ education, family income, and two-parent family compared to single-parent family; mothers’ psychological adjustment and sensitivity; and the social and cognitive quality of home environment” (Eunice Kennedy Shriver National Institute of Child Health and Human Development, NIH, DHHS, 2006).

This conclusion may be illustrated by the influence of “parenting quality” and “child care quality” on “pre-academic skills” (Eunice Kennedy Shriver National Institute of Child Health and Human Development, NIH, DHHS, 2006) as shown in Figure 3.

Although it is true that parenting quality and child care

quality are effective, the significance of parenting quality should be seen as much more influential and far-reaching than that of child care quality. The motives for expanding day care centers in Germany may thus be found elsewhere. It is not primarily about the educational success of the children but about, for instance, the economic clout or egoism of the parents—one can look at it this way, but then one should also stand by this opinion. The consequence for day care centers is that, the expansion must go hand in hand with the qualification of the personnel. Good is not good enough here: it is necessary to attract the best and brightest for this task.

New media at schools

The autonomy of the school with regard to economic interests has recently been making headlines again. Media companies in particular are pushing their way into the educational system and promising breakthroughs in learning success: computers, internet, tablets, whiteboards, etc. All of this, they proclaim, is revolutionizing learning.

However, a look at the educational research on this topic brings one back down to earth again (Hattie, 2009). Media achieve an effect size of only 0.22, and even the computer cannot manage more than an effect size of 0.37. In addition, it is interesting to note that over the past thirty to forty years there has been no positive trend in favor of media or computer use (Hattie, 2009) (Figure 4).

In other words, we have been waiting for this revolution for 30 years now. The reason why it has not (yet) arrived is obvious. Teachers often use new media only as a replacement for traditional media: the whiteboard as a blackboard, the internet as an encyclopedia, the tablet as a worksheet, and so on. It is not enough to just set up new media in the classroom. What is more important is

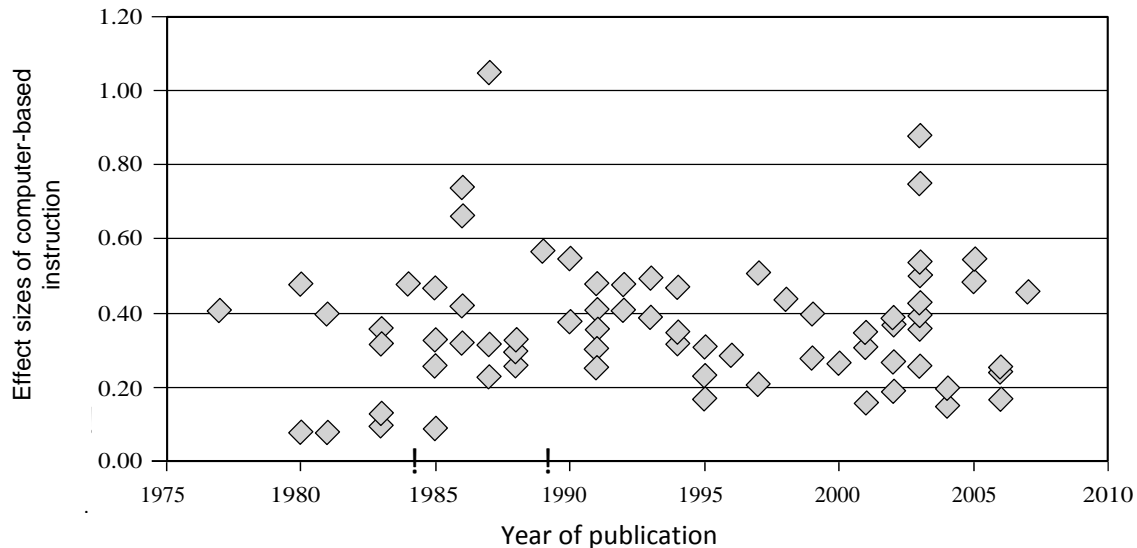


Figure 4. Relation between effect sizes of computer-based instruction and the year of the publication.

the teachers' skills in using them.

To sum up, structural measures alone achieve little. The key factor is the people that bring these structures to life. In the context of education this is above all “the” teachers. Not all of them, however, but only certain ones. Which teachers are these?

The difference between experience and expertise

It seems that one of the greatest mistakes of expert research is the notion that there is a causal connection between expertise and experience—one often finds the number “10” as an almost canonical yardstick for gauging the attainment of expert status (Gruber, 2013).

A simple example makes this clear, there are teachers who have been teaching for thirty or forty years who have still not advanced beyond the level of a hobby pedagogue, and there are trainee teachers who show from their first lesson on that they already have what it takes to become a successful teacher. This makes the periodic evaluation practices for teachers—and the dominant argumentation underlying them that one has to have been around long enough to achieve the highest evaluation—seem like a farce.

The difference between experience and expertise implied by this example is important. Many years of experience at school alone do not make an expert—even though experience is surely important for expertise; but the latter does not inevitably follow the former. The amount of years one has spent in the profession is not the key factor. Rather, the key factor is what Gardner et al. (2005) state to sum up the findings of their research project “good work”.

Good work is less a matter of what one does than of how one does it. Consequently, they name engagement (commitment), exzellenz (excellence), and ethik (ethics) as the distinguishing features of good work and speak pointedly of the three Es. Similar studies have been conducted on teachers, and the findings are summed up in terms that are equally pointed.

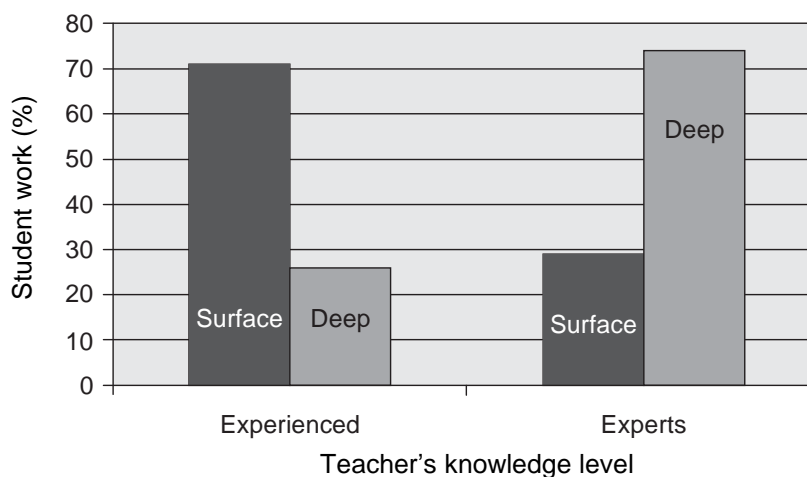
According to Hattie (2012), for instance, expert teachers are characterized by the Seven Cs: Care, Control, Clarity, Challenge, Captivate, Confer, and Consolidate. Expert teachers achieve higher scores than all other teachers in these areas and are ranked by students much more often at the 75th percentile, whereas other teachers end up predominantly at the 25th percentile (Bill and Melinda Gates Foundation, 2010; Hattie, 2012) (Table 1).

This can be illustrated by way of two examples: First, it may be shown that expert teachers assign their students many more challenging tasks involving transfer and problem solving (deep level); whereas non-experts usually assign tasks that remain on the level of reproduction and reorganization of knowledge (surface level). Hattie (2012) summarizes his studies on this topic as presented in Figure 5.

Second, expert teachers have been shown to give their students more feedback on the levels of task, process, and self-regulation, particularly on the last level, which is the most important from the perspective of the learners (Hattie, 2012). It is the passionate and inspired teachers, as Hattie (2012) calls them repeatedly, who are the key factor for educational processes. He defines ten mind frames that such teachers possess, thus shifting this concept to the center of the discussion on student success. They are described in the following (Hattie,

Table 1. The seven Cs: Differences in students' views of high-value and low-value teachers on seven factors of classroom climate.

Dimensions	Example items	At the 25th percentile (%)	At the 75th percentile
Care	My teacher in this class makes me feel that s/he really cares about me	40	73
	My teacher really tries to understand how students feel about things	35	68
Control	Students in this class treat the teacher with respect	33	79
	Our class stays busy and doesn't waste time	36	69
Clarity	My teacher has several good ways of explaining each topic that we cover in this class	53	82
	My teacher explains difficult things clearly	50	79
Challenge	In this class, we learn a lot almost every day	52	81
	In this class, we learn to correct our mistakes	56	83
Captive	My teacher makes lessons interesting	33	70
	I like the ways in which we learn in this class	47	81
Confer	Students speak up and share their ideas about class work	40	68
	My teacher respects my ideas and suggestions	46	75
Consolidate	My teacher checks to make sure that we understand when s/he is teaching us	58	86
	The comments that I get on my work in this class help me to understand how to improve	46	74

**Figure 5.** Percentage of student work classified as surface or deep learning.

2012; Hattie and Zierer, 2017):

1st mind frame: I talk about learning, not about teaching: One of the main messages of *visible learning* is that taking into account prior knowledge, and experiences is important for successful teaching. This may be seen clearly in the effect size of $d=1.28$ that

Hattie (2009) finds for the factor "Piagetian programs (stages of cognitive development)". As a result, the teacher needs to take a close look at the learning conditions and ask the following questions:

1. What achievement level are my students at? Are they beginning learners, advanced learners, or experts?

Table 2. SOLO model.

Level		Description
Surface understanding	Unistructural	Knowledge of one relevant aspect
	Multistructural	Knowledge of several unconnected aspects
Deep understanding	Relational	Knowledge of several connected aspects
	Extended abstract	Knowledge transferred to a new area

2. How is their belief in their self-efficacy? Is it high, and do they regard difficult tasks as a challenge? Or is it low and do they regard difficult tasks as a threat?

3. What kind of self-motivation do they have: intrinsic or extrinsic?

We would like to warn against learning style tests at this point, which Hattie (2012) sees as often lacking in quality. As a rule, they do not measure that which they claim to measure. The results they produce are thus unclear and benefit the publishers more than the learners.

2nd mind frame: I set the challenge: One of the most surprising findings of research on the planning activities of teachers is doubtlessly that teachers hardly spend any time at all thinking about goals (Zierer and Wernke, 2013).

This finding is usually interpreted differently depending on the teacher in question. In the case of experienced teachers, lack of consideration for goals is regarded as less problematic, because they have already held the same lesson several times before; and thus has enough of a routine.

However, regardless of whether the teacher has held the lesson before or not, he or she certainly has not yet held it with the same learners. In the case of novice teachers, on the other hand, a failure to consider goals is condemned in the strongest of terms, because without a consciousness of one's teaching goals it is not possible to reflect on the success of one's own teaching, which, however, is an essential element of professional behavior.

Hence, whichever way one looks at this finding, "teacher clarity" ($d=0.75$) with regard to the "goals" ($d=0.56$) is among the most important factors for successful instruction and for professional behavior (Hattie, 2009). However, it is not enough to be able to describe the goal of the lesson and to know what is in the syllabus, because these goals are too abstract and too far away from one's own actual instruction.

In addition, teachers need to adjust the goals to fit the learning conditions. As a means of achieving this, Hattie (2009) introduces the so-called structure of observed learning outcomes (SOLO) taxonomy by John Biggs and Kevin Collis, which differentiates essentially between a surface understanding and a deep understanding. Each of these two forms of understanding is divided into two levels (Biggs and Collis, 1982) as presented in Table 2.

A closer look shows that these levels can be connected with the aforementioned "stages of cognitive development" ($d=1.28$) as well as with the levels of difficulty - "reproduction," "reorganization," "transfer," and "problem solving" - introduced by Deutscher Bildungsrat (1970) (German Educational Council). As long as a student has not developed a surface understanding (reproduction and reorganization) of a topic, there will be little use in confronting him or her with problems at the level of a deep understanding (transfer and problem solving).

Conversely, it is not very stimulating for a student who already has a deep understanding (transfer and problem solving) of a topic to work on problems at the level of a surface understanding (reproduction and reorganization).

3rd mind frame: I see learning as hard work:

Regardless of the level at which learners are located, progress on academic achievement requires effort and hard work on the part of everyone involved. With regard to the learner, this may be seen in the significance of "spaced and massed practice" ($d=0.71$) (Hattie, 2009). It is absolutely essential for academic achievement, and is characterized by challenge, regularity, and diversity. Yet it is also crucial to remember that making mistakes is a part of learning. There is no sense in trying to avoid them. What is more important is to use them for constructive purposes. This too involves effort and hard work on the part of all involved.

4th mind frame: I develop positive relationships:

A culture of mistakes of the kind mentioned earlier can only develop on the basis of intact "teacher-student relationships" ($d=0.72$) (Hattie, 2009). An atmosphere of trust and confidence, security, care, and goodwill is absolutely essential for education in general and academic achievement in school in particular. This calls for "student-centered" and "passionate" teachers who are focused primarily on the students rather than on their own knowledge and abilities. In this way, the learners become the point of departure for teaching. The success of the learners becomes the success of the teachers. The dominant mind frame is that instruction entails cooperation, because the two sides need each other. Moreover, learning failures are not attributed (exclusively) to the learner but are rather seen as a common failure; which at the same time opens up the necessity and the opportunity to try again and again.

Attention	Relevance	Confidence	Satisfaction
<p>Perceptual Arousal</p> <p>Provide novelty and surprise</p>	<p>Goal Orientation</p> <p>Present objectives and useful purpose of instruction and specific methods for successful achievement</p>	<p>Learning Requirements</p> <p>Inform students about learning and performance requirements and assessment criteria</p>	<p>Intrinsic Reinforcement</p> <p>Encourage and support intrinsic enjoyment of the learning experience</p>
<p>Inquiry Arousal</p> <p>Stimulate curiosity by posing questions or problems to solve</p>	<p>Motive Matching</p> <p>Match objectives to student needs and motives</p>	<p>Successful Opportunities</p> <p>Provide challenging and meaningful opportunities for successful learning</p>	<p>Extrinsic Rewards</p> <p>Provide positive reinforcement and motivational feedback</p>
<p>Variability</p> <p>Incorporate a range of methods and media to meet students' varying needs</p>	<p>Familiarity</p> <p>Present content in ways that are understandable and that related to the learners' experiences and values</p>	<p>Personal Responsibility</p> <p>Link learning success to students' personal effort and ability</p>	<p>Equity</p> <p>Maintain consistent standards and consequences for success</p>

Figure 6. Dimension associated with various empirically investigated motivational strategies.

5th mind frame: Use of dialogue instead of monologue: According to the current state of research, “cooperative learning” ($d=0.41$) is particularly effective—especially when it leads to clarity with regard to goals, content, methods, and media on the part of the learner and the teacher, in combination with “direct instruction” ($d=0.59$) (Hattie, 2009). Cooperative learning is founded on the basic principle “think, pair, and share”. In the first phase (think), the students worked alone on a topic. In the second phase (pair), they discussed and compared the results from the first phase in small groups. In the third phase (share), finally, the students presented the results of the group discussions from the second phase to the entire class (Green and Green, 2005).

6th mind frame: Let everyone know about the language of learning: It would be reductive to hold the teacher alone responsible for the success of his or her students. This is visible in the mean effect sizes of the six domains “learners,” “family,” “school,” “curriculum,” “teaching,” and “teacher” from *visible learning* as well as in the great influence of “socioeconomic status” ($d=0.57$) or “motivation” ($d=0.48$) (Hattie, 2009). Learning is not the job of a single person. It involves close exchange between all involved. As an expert in education and instruction, the teacher of the course takes on a key role.

7th mind frame: I am an agent of change: It would be a wrong use of Hattie (2009) results to decide old

methodological disputes that are steeped in tradition, particularly when he is not even familiar with them (Peschel, 2013).

His concern is different; he is interested first of all in determining to what extent teachers can evaluate their own teaching activity, and empirical data in the broadest sense are helpful in this endeavor. The second key point for him is that if the lesson turns out to be ineffective, it is not exclusively the fault of the learners. Teachers too need to question their role and change their methods accordingly. He thus stresses that teachers need to have a broad and flexible repertoire of methods at their disposal.

This can be illustrated by means of an example: Motivation is essential for the learning process—in *Visible learning* this factor achieves an effect size of $d=0.48$ (Hattie, 2009). Hence, it is important to pay special attention to motivation during instruction. The so-called ARCS Model by John Keller lists a large number of different strategies for this. The letters stand for the four following dimensions of motivation: A for attention, R for relevance, C for confidence, and S for satisfaction. These dimensions are associated with various empirically investigated motivational strategies (Keller, 2010) are presented in Figure 6.

Each strategy in Figure 6 can be linked to concrete activities. The strategy “inquiry arousal” in the dimension “attention,” for instance, results in the following possibilities for motivation:

Table 3. Levels of feedback in classrooms.

	Hattie and Masters (2011)	Van Den Bergh and Beijaard (2010)	Gan (2011)
Level	18 HS classes	32 teachers in middle school	235 peers
Task	59%	51%	70%
Process	25%	42%	25%
Regulation	2%	2%	1%
Self	14%	5%	4%

1. Use an example that does not seem to illustrate a given concept.
2. Imagine two equally plausible hypotheses, only one of which is true. Imagine a fact that seems to contradict the previous experience of the learners.
3. Advance a contradictory opinion on a phenomenon as a teacher.

An overview of this kind has the advantage of enabling teachers to adapt different learners and different conditions, and react with corresponding flexibility. The success of these methods depends especially on how well they fit the various “stages of cognitive development” ($d=1.28$). This leads to instruction that differentiates between individual learners that aim at the achievement level they should just be able to reach; while keeping the learning goals in mind, and that is therefore challenging. John Hattie always speaks in this context of the “1+” strategy (Hattie, 2012).

8th mind frame: I am an evaluator: As implied earlier, the question of the impact of teaching—and, connected to this, that of providing evidence for this impact—is at the core of visible learning and successful learning. This involves two factors that are among the most influential ones of all in *Visible learning*: first, “feedback” ($d=0.73$), and second, “providing formative evaluation” ($d=0.90$) (Hattie, 2009).

The key element for both of these factors is their so-called “backward design.” What this means is that instruction needs to be evaluated with its endpoint in mind, after the lesson is before the lesson. The goal to be reached needs to be its starting point. What might this look like, for example, in the case of feedback? The most important thing here is the completeness of the feedback. Successful feedback needs to answer the questions “Where are you going?”, “How are you making progress?” and “Where are you going next?” The emphasis should thus be placed on the problem, the process, and the self-regulation.

Several studies have succeeded in demonstrating that it is a rare occurrence to achieve such completeness and that feedback only rarely focuses on self-regulation, although it is the most important perspective for the learners. This is made evident by the potential of the factor “feedback” (Hattie, 2012) (Table 3).

9th mind frame: Student achievements are feedback for you, about you: Hattie (2012) points out repeatedly that feedback in instruction should not be understood as a one-way street but that it goes in both directions- from the teacher to the learner- which is what is usually discussed, but also from the learner to the teacher.

The latter form of feedback is indispensable to visible learning: Did the learners achieve the goals? Did they understand the content? Were they able to work with the methods? And were the media easy to manage and appropriate? Only when a teacher has this information is he or she in the position to plan the next lesson. A good look at the students’ exercise books is sometimes all it takes. If a teacher does not have this information, he or she risks teaching over the heads of the learners and leaving it up to chance whether the plans fit the learners.

Obviously, the teacher’s own assessment on the course and success of the lesson is not sufficient: Students have learned to function in class and to play the game. They take part even if they are not taking things in. The reason is simple: It enables them to avoid penalties. In this way, a lesson may run extremely well from the perspective of the teacher, while from that of the student it is boring.

As a basic principle, it should be noted that it takes time to develop a culture of feedback—like any other kind of culture!—and that it cannot be introduced from one day to the next. It is thus wise to be cautious when introducing methods that require for the culture of feedback to have already reached a certain level. For example, if a school wishes to introduce peer observation visits, the teachers must have developed the right mind frame for it and there must be an atmosphere of mutual trust among them. If this is not the case, important steps toward reform can fail before they even get underway (Zierer et al., 2014).

As a consequence, it is possible to make several concrete recommendations; first, speaking together should precede discussing one another. Second, positive feedback makes it easier to digest negative feedback. And third, feedback happens at different levels (instruction, teaching staff, school management, school board). The path from the inside (instruction) to the outside (the school board) seems to be more effective with regard to developing a culture of feedback.

It is obvious that a culture of feedback depends on a corresponding mind frame. Mistakes should not be seen

as a flaw but as an opportunity. Instruction should be understood as a dialogue rather than as a monologue. To reiterate the most important aspects on this topic: The teacher-student relationship is supported by mutual trust and confidence. This feedback method can help teachers to compile important information as a means of determining their own impact. A further important step toward achieving this goal is “self-assessment of one’s own achievement level”—a factor with the highest effect size according to *Visible Learning*, namely 1.44.

10th mind frame: I collaborate: According to the current state of research, “collective teacher efficacy” ($d=1.58$) is one of the most effective factors. In its center is a goal consensus, which leads teachers to diagnose, intervene and evaluate their teaching with the help of collaboration. The conditions of effective goal setting require first the capacity of the team to meet the goals, second a clear and specific definition of the goals and third the commitment by the team (Hattie, 2009).

Hence, we need teachers who do not see instruction as a monologue but as a dialogue, who are always looking for something in their students that nobody knows anything about and nobody believes in anymore, who can speak passionately and competently about their knowledge as well as about their lives, who exchange information with their colleagues, collaborate with them, and treat their students as equals, conscious of the fact that they need each other. Besides the call for evidence-based reform, that is the main message of *Visible learning* (Hattie, 2009), a message that has yet to be identified on account of the often reductionist focus on individual factors.

Conclusions

To summarize these reflections, we can state that structural reforms of education alone achieve little. They need to be brought to life. This depends above all on the teachers’ mind frames. What implications does this have for educational policy?

First of all, it makes no sense to continue flooding the German education system with structural measures that leave the basis out of account. Reforms that do not consider the people they affect leave it up to chance whether they will take root or not. In questions of education, this way of going about things is ethically irresponsible.

Second, teacher education needs to focus more closely on this aspect right from the outset. This is particularly evident in the university phase, which focuses on the acquisition of knowledge in teaching subjects. That is important, but subject matter competence remains useless if it is isolated from pedagogical competence, which enables teachers to establish a relationship with their students, and didactic competence that enables them to explain, illustrate, and demonstrate content.

Third, it is high time to stop talking incessantly about structures in educational policy discussions and to start talking about expertise. There is reluctance in referring to Finland in this context, because it is often cited as proof that keeping children at the same schools for a long time is more successful. That is not the point. Rather, the point is, only around ten percent of the people who want to become teachers in Finland actually become teachers, and a certain amount of expertise is thus present right from the start.

Besides, anyone who has ever visited a Finnish school knows that this expertise manifests itself primarily in mind frames, like those discussed earlier. If some of the quite plausible and surely important structural reforms proposed in recent years, also succeed in having a positive impact on teachers’ mind frames, it will only be a matter of time before the arguments that speak for their introduction are joined by evidence-based proof.

CONFLICT OF INTERESTS

The author has not declared any conflict of interests.

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Full Length Research Paper

Examination of children decision making using clues during the logical reasoning process

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Logical reasoning is the process of thinking about a problem and finding the most effective solution. Children's decision-making skills are part of their cognitive development and are also indicative. The purpose of this study was to examine children's decision-making skills using clues in logical reasoning based on various variables. The study was conducted according to the relational screening model. A purposive sampling method was used in the research. The study group consisted of 119 children attending the kindergarten. Big Math observation form developed by Ginsburg et al. (2003) and adapted to Turkish by Çelik (2012) was used as data collection tool. For this purpose, the children were given two sets of Big Math quadruple clue cards. The data of the study were collected in May 2016/2017 academic year. Percentage and frequency values of the obtained data were calculated. In addition, Mann-Whitney-U test and Kruskal-Wallis test analysis were conducted to measure the differences between groups and the relationships between variables. The results of the research showed that there was no significant difference in the decision making skills of children using logical reasoning clues according to gender. However, it was found that there was a significant difference between the variables of decision making using clues and parents' educational level, and parental occupation and family's economic level.

Key words: Logical reasoning, decision making, child.

INTRODUCTION

Logical inquiry is the process of thinking to achieve a rational result. During this process, factors such as time, investment, physic and/or mathematical rules, ethics, social and religious beliefs are taken into consideration (Ergül, 2014). Children begin to make logical reasoning before they begin school. However, their abilities are rather limited. This is due to the fact that the logical reasoning of the children in this period is based on their own world knowledge and experiences, and are under

the influence of their self-centered considerations. As knowledge and experience increase, the ability of logical reasoning also evolves (Clements and Sarama, 2007). However, they often encounter problems that need to be solved in this process. One of the problems that children solve by making logical reasoning is decision making. When the ability to make decisions in children is examined as a process, it appears to be a part of cognitive development, because it is necessary to have

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good thinking ability in the decision making process. According to Piaget (1985), children can have good thinking ability that enables them to perform more complex mental operations during the concrete operations period (ages 7 to 11).

Children have the ability to make mental decisions right from a very young age. For example, a 6 to 9 month old baby may consider pulling back a blanket to reach a toy which he or she otherwise cannot reach (Clements and Sarama, 2007). Children between the ages of 3 and 6 can make mental decisions about their behavior. They have the ability to monitor and intensively observe the events taking place around them (Epstein, 2003; Duman, 2016). According to Fawcett and Markson (2010), children can recognize other people's preferences from the age of three, determine whether they match their own preferences, and use this knowledge to make their own decisions (Ergül, 2014). In order for children to be able to make logical reasoning they need to understand what is expected of them (Clements and Sarama, 2007). Therefore, educational activities appropriate to their developmental characteristics and individual needs should be applied for the development of decision-making skills by making logical reasoning of children. Mathematics is one of the activities that children use most intensively in their logical reasoning. This is because all the rules and operations in mathematics are based on logical reasoning. Children are exposed to mathematics right from birth and basic mathematical information begins in infancy and develops in bounds in the first 5 years of life. Because mathematical skills start to develop in early years, providing a rich stimulating environment especially for infants is important. The first surrounding that children are usually exposed to is the home environment. The results of the research show that the frequency and variety of practices that families do for mathematical development in the home environment has the positive effect of supporting mathematical development in children (Starkey et al., 2004; Young and Loveridge, 2004). In the school, it is considered important for the educator to create a learning environment based on social motivation and to develop cognitive behaviors. Teachers scaffold children's learning by providing hints, offering a range of answers, and encouraging children to use additional resources. These strategies help children understand the difference between guessing and knowing and realize that guessing requires testing. The ability to distinguish when there is and is not enough evidence to draw conclusions is fundamental to good problem solving (Whittaker, 2014).

Teachers need to use the language of mathematics and provide environments where children can work together, discuss, and take risks. In addition, teachers should create classroom environments that offer freedom and respect for different approaches to problem solving so that children can make decisions by mathematical reasoning (Kirova and Bhargava, 2002; Ginsburg et al., 2003; Greenes et al., 2004; Jackman, 2005).

This study examines the decision-making skills of pre-school children by making logical reasoning. Studies that examine children's decision-making skills often include primary and secondary education students. These studies have focused on the professional decision-making processes and vocational guidance issues of children (Kesici, 2002; Candangil, 2005; Davey, 2010; Huber, 2003; Tatlılıoğlu, 2010). When the researches are examined, it is seen that there is not enough study on logical reasoning and decision making skills in preschool period. Therefore, this research is important because it examines decision making skills by making logical reasoning in children in the pre-school education period.

Purpose of the research

This study was conducted in order to examine children's decision making by using clues in logical reasoning in terms of various variables, with the general aim of the research, the level of children's ability to use their clues in logical reasoning, and the questions: whether there is a difference between the genders, income levels of the families, education levels of the parents, and professions of the parents were asked.

METHODOLOGY

Research model

The model of the research is the descriptive relational screening model from quantitative research. The relational screening model aims to determine the presence of covariance and/or degree of it between two or more variables (Karasar, 2005). Within the content of this study, decision-making abilities of children participating in the study were determined using Big Math clue cards and an observation form.

Research sample

The universe of the work consists of kindergartens attached to the Ministry of National Education in the city center of Düzce and 60 to 72 month old children attending kindergartens of primary schools.

Sampling

The research sample consisted of 119 children from the 11 selected kindergartens. "Convenient sampling" was used in determining the sample. In this method, the researcher can chose the subjects based on their convenient accessibility and proximity to the researcher (Yıldırım and Şimşek, 2005). For this reason, the researcher chose schools that had easy access. 55.5% of the children participating in the study were boys and 45.5% were girls. 44.5% of the mothers of these children were primary and secondary school graduates, 27.7% were high school and 27.7% were university graduates. 43% of the fathers were university graduates and 29% were high school graduates. 56% of the mothers were housewives, 36% of the fathers were civil servants. 32% of the families had very good economic level and 23% had low economic level.

Data collection tools

In the research, in order to collect general information about children and their families, a "General Information Form" was used. The observation form prepared for children aged 60 to 72 months to make decisions by using clues in logical reasoning, developed by Ginsburg et al. (2003) and adapted by Çelik (2012) and the material consisting of two sets of quadruple clue cards were used.

General information form

The sampling included questions about the gender, parent's education status, and parent's occupation.

Observation form

The Big Math observation form was developed with the aim of measuring decision-making abilities by using clues in logical reasoning of children aged 60 to 72 months (Ginsburg et al., 2003). This observation form consisted of questions that 'carefully examine the elements of each card in a set', 'understand the elements of each card', and 'understand and use the clues'. Observed cases were given 1 point when the answer was 'yes' and 0 points when the answer was 'no'. One boy and one girl were chosen for an inter-observer reliability measures. Same children were observed independently by two researchers and their reliability score was 0.90. The researcher completed the observations by herself and the reliability coefficient of the observations made in this study (KR20) was found to be 0.80.

Clue cards

There were quadruple pictures in each set of the clue cards that were prepared for children's ability to make decisions using clues in logical reasoning. The picture of a kite was used in one set of clue cards while picture of another kite was used in another set. These sets included three clues in order to deliver the answer.

Set 1: The following geometric shapes with varying numbers were used in the quadruple clue card with a kite which was numbered from 1 to 4: First card: two triangles, two squares, one circle; Second card: two squares, one triangle, one circle; Third card: two squares, two triangles, two circles; and Fourth card: one square, two triangles, one circle.

Set 2: The following geometric shapes with varying numbers and sizes were used in the quadruple clue card with a blanket which was numbered from 1 to 4: First card: two large circles, three small squares; Second card: two large squares, four triangles, three small squares; Third card: two large squares, two triangles, three small squares; Fourth card: two large squares, two triangles, four small circles.

Collection of data and analysis of data

The drama work was done with the children before the researcher started to collect data and the children were accustomed to the researcher. The researcher sat next to the child and placed the clue cards in front of the child, ordered from 1 to 4. The application was made individually with each child in a quiet center in the class. Before the researcher began to practice, he/she started the interviews by saying to the children, "Now we will play a game with you". Children were asked "What are these?" After the response of the "Kite" was received, "Yes they are kites. One of them is Kerem's

kite. I will give you clues to help you decide which kite belongs to Kerem. The first clue is that Kerem's kite has two squares; now which of these can be Kerem's kite?" was asked. After each child had given an answer, he/she was asked to close the picture that does not belong to Kerem according to this clue. The children were given three clues, respectively, and every time he/she was asked to close the picture that did not fit the clue. The last opened kite card was Kerem's kite. Children's answers were not intervened in any way. The same application was made for Clue Card 2. When the application was made, the children were observed and the assessments were recorded on a numbered observation form with the names for each child.

The data collected in the study were found not to be normally distributed in the analysis performed. Percentage and frequency values of the data obtained from the observation evaluation results were calculated. Statistical analysis was also performed with the Mann-Whitney-U test and Kruskal-Wallis test.

FINDINGS

When the results of the observation evaluation were examined in Table 1, it was seen that 95.8% of the children had g1 "looking carefully at each elements' member in a set" observation material. Children had ga1 "recognizes and identifies each card's elements" observation in the ratio of 92.4% and ga2 "counts elements correctly" observation in the ratio of 91.6%. However, they had 58.8% of the gb1 "remembers clues" observation and 57.1% of the gb2 "understands the meaning of the clues" observation.

In Table 2, it is seen that there was no significant difference in children using the clues in decision making by logical reasoning according to gender ($U=1642.500$, $p> 0.05$).

When Table 3 is examined, it is clear that there was a difference in children using the clues in decision making by logical reasoning according to family income ($\chi^2(4)=72.02$, $p<0.05$). According to the results of the Mann Whitney U test to determine in which income levels there were differences, children of the families with middle, high and very high income levels had positively significant difference than the children of families with low and very low income levels and children of families with very high and high income levels had positively significant difference than the children of families with medium income levels.

In Table 4, it is evident that there was a difference in children using the clues in decision making by logical reasoning according to parental education status ($\chi^2(2)=22.08$, $\chi^2(2)=24.22$ $p<0.05$). According to the results of the Mann-Whitney-U test, mothers who are high school and university graduated mothers had positively significant difference than the children of the mothers of primary and secondary school graduates and the children of fathers who were university graduates had positively significant difference than the children of the fathers who were primary and secondary school and high school graduates.

When Table 5 is examined, it is again clear that there

Table 1. Results of observation evaluation.

Items	Yes		No		Total	
	f	%	f	%	f	%
g1	114	95.8	5	4.2	119	100.0
ga1	110	92.4	9	7.6	119	100.0
ga2	109	91.6	10	8.4	119	100.0
gb1	70	58.8	49	41.2	119	100.0
gb2	68	57.1	51	42.9	119	100.0

Table 2. Results of the Mann-Whitney-U test according to gender in children's use of clues in decision-making by making logical reasoning.

Group	n	Order average	Total order	U	p
Girl	53	57.99	3073.50	1642.500	0.519
Boy	66	61.61	4066.50	-	-
Total	119	-	-	-	-

p>0.05.

Table 3. Results of the Kruskal-Wallis test according to family income in children's use of clues in decision-making by making logical reasoning.

Level	n	Order Avr.	sd	χ^2	p	Significant difference
1.Very Low	12	17.63	4	72.02	0.000	
2.Low	27	34.57	-	-	-	
3.Middle	25	58.30	-	-	-	
4.Good	17	82.26	-	-	-	1-3, 1-4, 1-5, 2-3, 2-4, 2-5, 3-4, 3-5
5.Very Good	38	82.61	-	-	-	
Total	119	-	-	-	-	

P<0.05.

Table 4. Results of the Kruskal-Wallis test according to parental education status in children's use of clues in decision-making by making logical reasoning.

Parameter	Level	n	Order Avr.	sd	χ^2	p	Significant difference
Mother	1.Primary and secondary school	53	46.26	2	22.08	0.000	
	2.High school	33	64.89	-	-	-	
	3.University	33	77.17	-	-	-	1-2, 1-3
	Total	119	-	-	-	-	
Father	1.Primary and secondary school	33	42.62	2	24.22	0.000	
	2.High school	35	54.51	-	-	-	
	3.University	51	75.01	-	-	-	1-3, 2-3
	Total	119	-	-	-	-	

P<0.05.

was a difference in children using the clues in decision making by logical reasoning according to parental

occupation status [$\chi^2(4)=19.41$, $\chi^2(4)=19.96$ p<0.05]. According to the results of the Mann Whitney U test to

Table 5. Results of the Kruskal-Wallis test according to parental occupation status in children's use of clues in decision-making by making logical reasoning.

Parameter	Occupation	n	Order Avr.	sd	χ^2	p	Significant difference
Mother	1.Housewife	67	51.23	4	19.41	0.001	
	2.Civil servant	26	81.27	-	-	-	
	3.Laborer	15	58.27	-	-	-	
	4.Independent business	6	58.00	-	-	-	1-2
	5.Other	5	74.50	-	-	-	
	Total	119	-	-	-	-	
Father	1.Not working	2	58.00	4	14.96	0.005	
	2.Civil servant	43	72.98	-	-	-	
	3.Laborer	42	49.48	-	-	-	
	4.Independent business	14	48.46	-	-	-	2-3
	5.Other	18	62.75	-	-	-	
	Total	119	-	-	-	-	

P<0.05.

determine which occupation groups were involved in this differentiation, the children of civil servant mothers were found to be positively different from the children of the mothers who were housewives on a significant level and the children of the fathers who were the civil servants were positively different from the children of the fathers who were laborers in significant level.

DISCUSSION

When the results of the observation evaluation were examined, it was found that the children knew and counted the circle, square (large-small), triangle geometric shapes found in the cards in set 1 and set 2 at high rate (95.8%). In this work, it was important that they could identify and count geometric shapes as preconditioning skills so that they could make decisions using clues. Observation evaluation results indicate that this condition was provided for the study. However, this rate dropped in observations that evaluated the understanding and recalling in logical reasoning using clues in decision making. Children need to understand what they wanted to do, to be able to make decisions by performing logical reasoning (Clements and Sarama, 2007). It was observed that 57.1% of the children who participated in the study had this and that they could use the clues correctly to make decision. It appears that there was no significant difference between girls and boys when children use clues to make decisions by logical reasoning. This result overlaps with other research results. Mata et al. (2013) have also found that there is no difference between boys and girls in their studies evaluating effective decision-making in Brazilian children aged 3 to 6 years. Klein et al. (2010) investigated the

effects of gender on pre-school children's verbal, spatial, mathematical skills and teacher-child mathematical interactions by video-taping children, while they were playing mathematical reasoning games. Mathematical, spatial and verbal skills of children and mathematical communication of teachers were evaluated. There was no significant difference between boys and girls based on their verbal, spatial, and mathematical achievement.

It seems that children's use of clues in decision making by logical inquiry differs according to their family's income. It has been found that children of families with very low and low incomes had difficulty in using clues in decision making by logical reasoning and that the levels of observation evaluation were low. One of the most important factors affecting income level is the occupied profession. The profession is generally achieved as a result of education. In this context, in the analysis of the educational status and occupation of the children's parents and the results of the observation evaluations found that there was a significant difference in favor of the children of the families who had high educational status and who were civil servants. The educational level of the family affects the aspects and attitudes toward mathematics and the quality of the mathematical activities offered to the child at home (Clements and Sarama, 2007; Musun-Miller and Blevins-Knabe, 1998). In the study of mathematical achievements of children attending kindergarten by Çelik (2015), the educational levels of parents and the level of income of their families were found to affect children's mathematical achievements. One observes that children at the age of 5 to 6 years with low income levels cannot even answer simple arithmetic problems, but most children with middle-income parents can easily answer (Griffin et al., 1994; Clements and Sarama, 2007). In one study, 75% of

children aged 5 to 6 years with middle-income level were found to be able to make inferences about the size of two different figures and to make basic addition mentally but the rate of 7% were found in children with low-income from the same community (Case et al., 1999). Ergül (2014) found that children's reasoning skills differed according to their parents' educational level and children of parents with higher education were more successful in the study conducted with 60 to 74 month old children. Karakaş (1999) found that, in the study of evaluation of 4 and 5th grade children in decision making skills related to problem solving in everyday life, the students in the upper level schools have more positive skills based on the economic environment of the school.

CONFLICT OF INTERESTS

The authors has not declared any conflict of interests.

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Full Length Research Paper

Classroom teacher candidates' perceptions of teacher self-efficacy in developing students' reading, writing and verbal skills: Scale development study

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This work uses exploratory and confirmatory factor analyses to study Verbal Skills Development Teacher Self-Efficacy Scale (VSDTS), Reading Skills Development Teacher Self-Efficacy Scale (RSDTS) and Writing Skills Development Teacher Self-Efficacy Scale (WSDTS) developed to identify classroom teacher candidates' perceptions of teacher self-efficacy in developing students' verbal, reading and writing skills. KMO values above 0.80 in all the three scales showed that the dataset was suitable for factor analysis. It can be argued that the scales are reliable since the factor analyses pointed that all the three scales had a single-factor structure. VSDTS, RSDTS and WSDTS were very good in the principal components analysis conducted under the framework of exploratory factor analysis. Their Cronbach Alpha internal consistency coefficients calculated were in the range of $0.80 \leq \alpha < 1.00$. In the confirmatory factor analysis of VSDTS, good NFI and RMR values and SRMR and CFI values above 0.95 point to substantial fit. In this context, 16-item single factor structure of VSDTS scale was confirmed. For RSDTS, good GFI values, NFI and CFI values above 0.95 and SRMR and RMR values below 0.05 corresponded to substantial fit. In this context, 11-item single factor structure of RSDTS scale was confirmed. For WSDTS, good AGFI values, GFI, NFI and CFI values above 0.95 and SRMR and RMR values below 0.05 corresponded to substantial fit. In this context, 8-item single factor structure of WSDTS scale was confirmed.

Key words: Verbal skills, reading skills, writing skills, self-efficacy.

INTRODUCTION

Teaching profession as the most profound career that focuses on the training and development of human beings requires one to be highly responsible. In this context, it is crucial for teacher candidates to have special qualities and competence. Self-efficacy is an important form of competence and it gives direction to individuals. There are many studies on the self-efficacy of

teachers and as well as pre-service teachers in educational research (Goddard et al., 2000; Henson, 2001; Çakıroglu et al., 2005; Tschannen-Moran and Hoy, 2001; Lin and Gorrell, 2001; Gavora, 2010; Loreman et al., 2013; Girgin, 2017).

Self-efficacy can be defined as an individual's confidence in his own ability to initiate and complete

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actions that affect the events around him (Bandura, 1994). It is also the quality that is necessary to undertake a task effectively (Kuran, 2002). Relating self-efficacy to teaching, it points to knowledge, comprehension, skills and attitudes that are necessary to undertake the tasks and responsibilities required in the teaching profession (Çetinkaya, 2007). Teacher self-efficacy includes the following: ability to differentiate instructions, adjust and configure curricular, and adopt pedagogical methods that satisfy the learning needs of a wide variety of learners (Loreman et al., 2013). In other words, teacher self-efficacy is the strength and ability of teachers to guide students. It also involves teachers' beliefs in their ability to successfully undertake tasks related to teaching, to change students' behaviors (Tschannen-Moran and Hoy, 2001) and to affect students' performance positively (Berman et al., 1977).

Teachers' competence is shaped according to an individual's motivation to teach, his/her characteristics and the training obtained from school. In this respect, teacher training should be given the attention it deserves and professional competence must be obtained during pre-service training.

This study focuses on assessing classroom teacher candidates' perceptions about their self-efficacy in contributing to the development of language skills, the basis of all learning. Compared to other teachers, classroom teachers have more responsibility in shaping the basics for future learning since they are the ones who first pass educational information to students in formal education setting.

Teachers have the role and responsibility to provide students with the fundamental knowledge and to develop their verbal, reading and writing skills during their first four years of schooling. They prepare learning environments that promote students' development, organize activities that enhance students' competence, assess and evaluate students' performance and take measures that increase students' academic achievement.

Learners construct their own learning through awareness, as prescribed by constructive learning approach, and effective communication with their environment is only possible with the development of verbal, reading and writing skills which ensure effective use of language. Language skills are the keys that open the door to learning in all other classes. Güneşli (2007) reported that individuals who cannot communicate efficiently, read or write in their own languages would experience difficulties in other classes, whereas individuals with high competence in their own languages would be able to think, create, discuss, question, solve problems and make decisions. Hence, it is suggested that the acquisition of effective language skills can facilitate students' adaptation to the information age that we are in now. For verbal skills, listening is one of the main routes to obtain knowledge, learn and comprehend.

The strategies used by learners who obtain most of their accumulated knowledge through intensive listening

are important. Individuals who have acquired the ability to learn through listening in all types of learning environments are able to use their listening skills and develop themselves (Karadüz, 2010). Listening is not a passive action for the listener; accurate and complete verbal communication requires that the listener, who is the recipient in the process, acts productively. Listening is the task of receiving and interpreting a message and it includes some cognitive behaviors such as perception and comprehension. Speaking is one of the fundamental activities of education and training and it is one of the factors that determines one's achievement or failure in school, business or social life since knowledge transfer, explanations, presentations, assessment and evaluation between teachers and students are primarily done through speaking (Kurudayıoğlu, 2003). Reading is defined as the recognition and perception of print and written symbols that act as stimulants for the recalling of meaning created as a result of prior experiences. It is the construction of new meaning using previous concepts learned by the reader (Tinker and McCullough, 1968); it involves creating meaning from a text and interpreting it (Grabe and Stoller, 2002). It is a process of making meaning where prior knowledge is used based on effective communication between the author and the reader and it takes place for a specific goal using a suitable method in a regular environment (Akyol, 2006). Therefore, reading is regarded as a significant skill for making sense of information and developing relevant perceptions. Writing skills are related to collecting, acquiring and expressing information (Carter et al., 2002), thoughts, ideas, requests and events with some symbols based on specific rules (Demir, 2013). Effective education and training processes are required for individuals to put down their acquisitions on paper. Therefore, identification of classroom teacher candidates' perceptions about their self-efficacy in developing students' verbal, reading and writing skills is believed to be important in the teacher training process.

Purpose

This study presents three separate scales developed to determine classroom teacher candidates' perceptions about their self-efficacy to develop students' verbal, reading and writing skills and it reports the exploratory and confirmatory factor analyses used for these scales. It is believed that it would be more beneficial to present these three tools together, and hence the factor analyses of the 3 tools are presented together.

METHODOLOGY

Participants

This study undertakes exploratory and confirmatory factor analyses of three separate scales developed to determine classroom teacher

Table 1. Participants and distribution of exploratory and confirmatory factor analyses.

Variable	Exploratory factor analysis	N		Confirmatory Factor Analysis	N
VSDTS	Akdeniz University	149	VSDTS	Gazi University	95
				Sakarya University	83
				Gaziosmanpaşa University	48
				Cumhuriyet University	25
				Aksaray University	33
				Abant İzzet Baysal University	81
				Total	364
				RSDTS	Akdeniz University
Sakarya University	83				
Gaziosmanpaşa University	48				
Cumhuriyet University	25				
Aksaray University	33				
Total	284				
WSDTS	Akdeniz University	149	WSDTS	Gazi University	95
				Sakarya University	83
				Gaziosmanpaşa University	48
				Cumhuriyet University	25
				Aksaray University	33
				Total	284

candidates' perceptions about their self-efficacy in developing students' verbal, reading and writing skills. Data used for the exploratory factor analyses of 3 scales were collected from 149 students of 3rd and 4th year in Classroom Education Department, Akdeniz University. Data used for the confirmatory factor analyses of RSDTS and WSDTS scales were collected from 3rd and 4th year students in Classroom Education Departments of Gazi, Sakarya, Gaziosmanpaşa, Cumhuriyet, and Aksaray Universities. Due to the extra number of items in VSDTS scale compared to other scales, data used for confirmatory factor analyses were also collected from Abant İzzet Baysal University students. Table 1 presents the distribution of exploratory and confirmatory factor analyses of the scales based on participants and universities.

According to Tabachnick and Fidell (2001), large samples are not required to obtain high factor loading, and a sample size of 150 is sufficient. According to Kleine (1994), a sample size of 200 is sufficient to obtain reliable factors in a factor analysis, and this figure can even be decreased to 100 when the factor structure is open and limited in number (Çokluk et al., 2012). While it is suggested that sample: variable (item) ratio for sample size should be kept to 10:1, it is proposed that this ratio can be reduced but it should be 2:1 at least (Büyüköztürk, 2002). In the light of this, it can be argued that the sample size used in this work is sufficient for exploratory and confirmatory factor analyses.

Data collection tools

In this study, three separate self-efficacy perception scales were developed to determine classroom teacher candidates' perceptions about their self-efficacy in developing students' verbal, reading and writing skills. Literature review shows studies that reported the development of more than one scales together (Cooper et al., 2006).

All the 3 scales used in the study are 5-point Likert type scales

with rating as follows: "Completely Disagree (5), Disagree (4), Partly Agree (3), Agree (2) and Completely Agree (1)". In order to determine the suitability/validity of the scale items in terms of content validity, scale items in all 3 scales were examined separately by 2 assessment and evaluation experts, 1 Turkish Education expert and 1 Linguistics expert. 90 to 100% agreement among experts was taken as the criterion for item validity. Items that did not meet this criterion were excluded and the scales were finalized in this manner before implementation.

Verbal skills development teacher self-efficacy scale (VSDTS)

Items (25) were written for the scale at first and these items were examined separately by 2 assessment and evaluation experts and 2 language experts. 7 items were excluded according to experts' views and 5 items were redesigned based on the suggestions of experts. The 16-item scale was finalized in this manner. ANNEX-1 presents the scale items.

Reading skills development teacher self-efficacy scale (RSDTS)

Items (13) were prepared for the scale which was reviewed separately by 2 assessment and evaluation experts and a Turkish Education expert. Language and expression in the items were edited and 2 items that were anonymously agreed on were excluded from the scale. The 11-item scale was finalized in this manner. ANNEX-2 presents the scale items.

Writing skills development teacher self-efficacy scale (WSDTS)

Items (10) were prepared for the scale which was reviewed

Table 2. KMO and Barlett's Sphericity Test.

Scales	Kaiser Meyer Olkin (KMO) value	Barlett test	df	Sig.
VSDTS	0.901	1341,870	120	0.000
RSDTS	0.879	788,608	55	0.000
WSDTS	0.850	546,863	28	0.000

Table 3. Communalities of VSDTS, RSDTS, WSDTS.

VSDTS	Initial	Extraction	RSDTS	Initial	Extraction	WSDTS	Initial	Extraction
M1	1,000	0.607	M1	1,000	0.414	M1	1,000	0.488
M2	1,000	0.622	M2	1,000	0.589	M2	1,000	0.521
M3	1,000	0.598	M3	1,000	0.593	M3	1,000	0.561
M4	1,000	0.527	M4	1,000	0.483	M4	1,000	0.482
M5	1,000	0.534	M5	1,000	0.357	M5	1,000	0.554
M6	1,000	0.375	M6	1,000	0.372	M6	1,000	0.562
M7	1,000	0.559	M7	1,000	0.456	M7	1,000	0.584
M8	1,000	0.622	M8	1,000	0.647	M8	1,000	0.595
M9	1,000	0.448	M9	1,000	0.525	-	-	-
M10	1,000	0.543	M10	1,000	0.540	-	-	-
M11	1,000	0.430	M11	1,000	0.496	-	-	-
M12	1,000	0.555	-	-	-	-	-	-
M13	1,000	0.395	-	-	-	-	-	-
M14	1,000	0.470	-	-	-	-	-	-
M15	1,000	0.362	-	-	-	-	-	-
M16	1,000	0.224	-	-	-	-	-	-

separately by 2 assessment and evaluation experts and 1 Turkish Education expert. Language and expression in the items were edited and 2 items that were anonymously agreed on were excluded from the scale. The 8-item scale was finalized in this manner. ANNEX-3 presents the scale items.

Data analysis

Firstly, exploratory factor analyses were carried out for the scales. Cronbach Alpha analyses were conducted before confirmatory factor analyses in order to determine internal consistency coefficients for the scales. Confirmatory factor analyses were carried out at the last phase of testing the reliability and validity of the work. While SPSS 20.0 package program was used during the exploratory factor analyses and item analyses in the study, Lisrel 8.30 (Linear Structural Relation Statistics Package Program) was utilized for confirmatory factor analyses.

RESULTS AND DISCUSSION

Factor analysis is conducted to discover the relationship among the variables and factors or to validate whether the variables construct a structure (factor). Exploratory factor analysis should be used when the main goal of the study is to discover the relationship among the variables and confirmatory factor analysis should be used when the main goal is to confirm the factors (Schumacker and

Lomax, 1996; Çokluk et al., 2012).

Exploratory factor analysis

KMO and Barlett's sphericity test were used to test the suitability of the scales for factor analysis. Table 2 displays KMO values and Barlett test results for the scales.

KMO criterion is the proportion of the sum of squares for the total correlation values of the variables to the sum of squares of total and part correlation values. When this proportion is close to 1, the correlation design in the R-matrix is narrow and when the value is close to 0, the design shows dispersion (Field, 2005). Kaiser (1974) reported 0.5 ratio as an acceptable cut of point and classified the KMO values as follows: 0.5- 0.7: mediocre; 0.7-0.8: good; 0.8-0.9: great; and over 0.9: superb (Çolakoğlu and Büyükekşi, 2014). In Table 2, the fact that KMO values in all 3 scales are above 0.80 shows that the dataset is suitable for factor analysis. Therefore, from this result one can say that factor analysis can be used for these 3 scales (Çokluk et al., 2012).

After testing the suitability of the scales used in this study for factor analysis, factor analysis was continued and at first, results of communalities were obtained for the scales. Table 3 displays the communalities for the

scales used in the study.

Communalities table presents the ratio of each item to explain the shared variance in a common factor. When the shared variance in an item explained by factors is smaller than 0.10, there is a high probability that these items are problematic (Çokluk et al., 2012). Examination of shared variance in the three scales shows no problems with the items.

The first column of Table 4 presents the number of items. In the first column, groups of initial eigenvalues, total eigenvalue, percentage of variance and cumulative percentage are provided. Also groups of Extraction Sum of Squared Loadings and suggestions are provided for factor numbers. According to Extraction Sum of Squared Loadings column group for the scales, a single factor is proposed for exploratory factor analysis (Çokluk et al., 2012). Examination of percentage of variance values in the Initial Eigenvalues group shows that the first factor contributed 49.196% to VSDTS, 49.749% to RSDTS and 54.353% to WSDTS. Examination of other factors' contribution to total variance shows a decreased significance in the constitution. In such cases, it is possible to determine the factor structure as 1 (Çokluk et al., 2012). Another data that can help determine the number of factors is the scree plot graphic. Figure 1 presents the graphics of VSDTS, RSDTS and WSDTS scales.

In the graphics presented in Figure 1, the contributions of the variables to the variance are displayed in points for the variables in Y axis sloping into X axis, and each range between two points means a factor. When the graphics are examined and the slope in all three scales after the second point is taken into consideration, it is seen that the contributions of the factors to the variance are both small and approximately the same. Therefore, it was decided that all three scales had single factors. Since the number of factors is identified to be one, there is no overlapping between factor loadings. However, the size of factor loadings for the scales seems to be significant. Table 5 presents the component matrix for all 3 scales.

Table 5 shows that all items met the criterion of acceptance point of factor loading of 0.32 (Çokluk et al., 2012) and that there were no items with factor loading below this value. Therefore, there was no need to exclude any of the items from the scales.

Reliability analysis

After conducting exploratory factor analyses, confirmatory factor analyses should be taken to assess construct validity for the scales. In this study, Cronbach Alpha analyses were conducted before confirmatory factor analyses to identify internal consistency coefficients for the scales. Confirmatory factor analyses were done at the last phase of assessing the validity and reliability of the work.

Table 6 presents the internal consistency coefficients for VSDTS, RSDTS and WSDTS scales. Cronbach Alpha internal consistency coefficient calculated according to the variance of each item was identified to be 0.928 in VSDTS scale, 0.895 in RSDTS scale and 0.878 in WSDTS scale. According to Özdamar (1999), when the Cronbach Alpha internal consistency coefficient of the scale is in $0.80 \leq \alpha < 1.00$ range, the scale is highly reliable. Therefore, the features measured by VSDTS, RSDTS and WSDTS are homogenous. Based on these results, it can be argued that VSDTS, RSDTS and WSDTS are reliable tools.

When Corrected Item-Total Correlation and Cronbach's Alpha if Item Deleted conducted to present additional reliability evidence (Table 7) are examined, it is observed that total item correlations for VSDTS changed between 0.428 and 0.743. Cronbach Alpha coefficient of the scale was found to be 0.928. This suggests that excluding only Item 16 from the scale would increase reliability to 0.929. However, since the increase was minor, it was decided to keep the item in the scale. Total item correlations for RSDTS changed between 0.511 and 0.739. Cronbach Alpha coefficient of the scale was found to be 0.895. Since exclusion of items would decrease reliability of the scale, no items were excluded. Total item correlations for WSDTS changed between 0.594 and 0.677. Cronbach Alpha coefficient of the scale was found to be 0.878. Since exclusion of items would decrease reliability of the scale, no items were excluded.

Confirmatory factor analysis

Confirmatory factor analysis (CFA) was conducted to determine construct validity for the scales. Confirmatory factor analysis is used to evaluate the validity of the factorial construct previously determined by the researcher (Floyd and Widaman, 1995; Kline, 2005; Çokluk et al., 2012) and presents detailed statics about the concordance of obtained data (Sümer, 2000).

Two types of matrices, correlation and covariance matrix are used in social sciences for confirmatory factor analysis and the researcher determines which one to be used (Çokluk et al., 2012). Covariance matrices were used in the current study.

Figures 2, 3 and 4 present the confirmatory factor analysis path diagram for VSDTS, RSDTS and WSDTS, respectively.

In Figures 2, 3 and 4, p value for all three scales was significant at 0.00 level of significance. However, in such large samples, it is highly probable to obtain significant p values (Yılmaz and Çelik, 2009). Hence, alternative fit indices are used to examine the concordance between the expected and observed covariance matrices. Table 9 presents the other fit indices and concordance levels for the forms.

Standardized factor loadings reported as a result of confirmatory factor analysis show the correlations

Table 4. Total Variance Explained for VSDTS, RSDTS, WSDTS.

Component	VSDTS					
	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	7,871	49.196	49.196	7.871	49.196	49.196
2	1,152	7.201	56.397	-	-	-
3	1,025	6.406	62.802	-	-	-
4	0.908	5,675	68.477	-	-	-
5	0.784	4.901	73.378	-	-	-
6	0.628	3.927	77.305	-	-	-
7	0.608	3.801	81.106	-	-	-
8	0.562	3.511	84.616	-	-	-
9	0.426	2.664	87.281	-	-	-
10	0.416	2.603	89.883	-	-	-
11	0.368	2.299	92.182	-	-	-
12	0.335	2.096	94.278	-	-	-
13	0.289	1.803	96.081	-	-	-
14	0.253	1.580	97.661	-	-	-
15	0.213	1.333	98.995	-	-	-
16	0.161	1.005	100.000	-	-	-
RSDTS						
1	5.472	49.749	49.749	5.472	49.749	49.749
2	1.109	10.085	59.834	-	-	-
3	0.999	9.084	68.918	-	-	-
4	0.685	6.229	75.147	-	-	-
5	0.576	5.234	80.381	-	-	-
6	0.496	4.511	84.892	-	-	-
7	0.466	4.236	89.128	-	-	-
8	0.387	3.522	92.650	-	-	-
9	0.296	2.695	95.345	-	-	-
10	0.287	2.608	97.953	-	-	-
11	0.225	2.047	100.000	-	-	-
WSDTS						
1	4,348	54.353	54.353	4.348	54.353	54.353
2	0.935	11.686	66.039	-	-	-
3	0.735	9.183	75.222	-	-	-
4	0.644	8.054	83.276	-	-	-
5	0.408	5.105	88.381	-	-	-
6	0.352	4.397	92.778	-	-	-
7	0.324	4.055	96.833	-	-	-
8	0.253	3.167	100.000	-	-	-

between each observed variable and the latent variable it is connected to. Correlation values lower than 0.30 point to low level relationships (Büyüköztürk, 2011). Examination of the table 8 shows that standardized factor loading for VSDTS, RSDTS and WSDTS scales was above 0.30.

R^2 shows the explained variance; how much of the

latent variable is explained by the observed variance. In other words, it presents the variance explained in each variable (Şimşek, 2007). This value is the most (0.55) and the least (0.38) for VSDTS scale; the most (0.55) and the least (0.39) for RSDTS scale and the most (0.62) and the least (0.39) for WSDTS scale. Error variance presents the variance not explained by the indicator

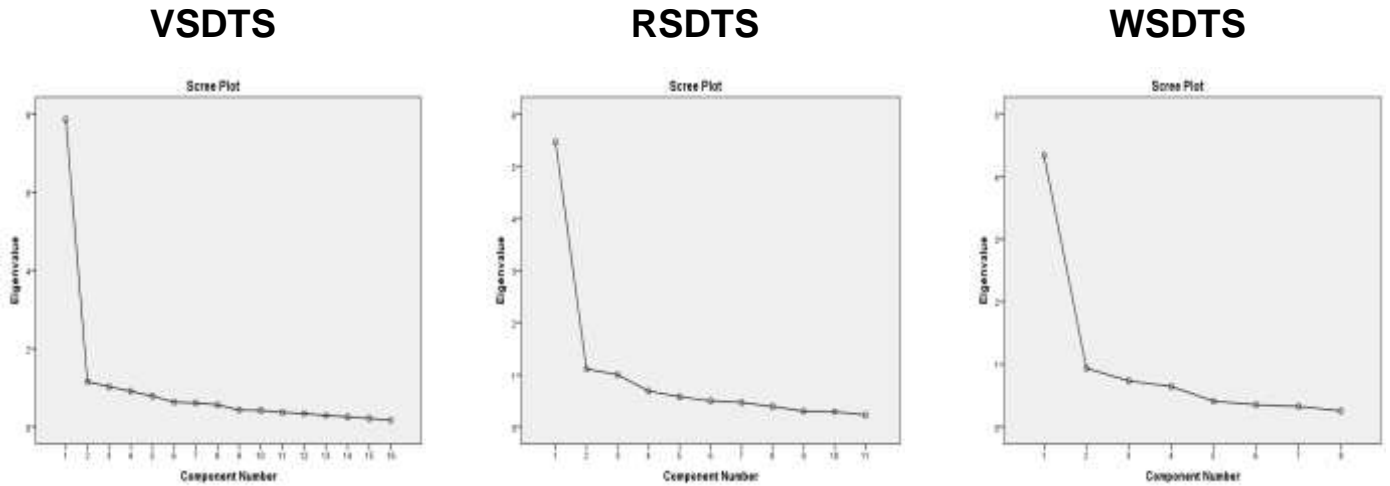


Figure 1. VSDTS, RSDTS and WSDTS Scree Plots.

Table 5. Component Matrix of VSDTS, RSDTS and WSDTS.

VSDTS	Component	RSDTS	Component	WSDTS	Component
-	1	-	1	-	1
M8	0.789	M8	0.804	M8	0.771
M2	0.789	M3	0.770	M7	0.764
M1	0.779	M2	0.768	M6	0.750
M3	0.774	M10	0.735	M3	0.749
M7	0.747	M9	0.724	M5	0.745
M12	0.745	M11	0.704	M2	0.722
M10	0.737	M4	0.695	M1	0.699
M5	0.731	M7	0.675	M4	0.694
M4	0.726	M1	0.643	-	-
M14	0.685	M6	0.610	-	-
M9	0.670	M5	0.598	-	-
M11	0.656	-	-	-	-
M13	0.629	-	-	-	-
M6	0.612	-	-	-	-
M15	0.601	-	-	-	-
M17	0.474	-	-	-	-

Table 6. Internal consistency coefficients for VSDTS, RSDTS and WSDTS.

Scale	Cronbach's alpha	Number of items
VSDTS	0.928	16
RSDTS	0.895	11
WSDTS	0.878	8

naturally. Error variance for the indicator is found by squaring indicator weight and subtracting it from “1” (Şahin et al., 2008).

Since the p value of the model provides information about the significance of the difference between the expected covariance matrix and the observed covariance

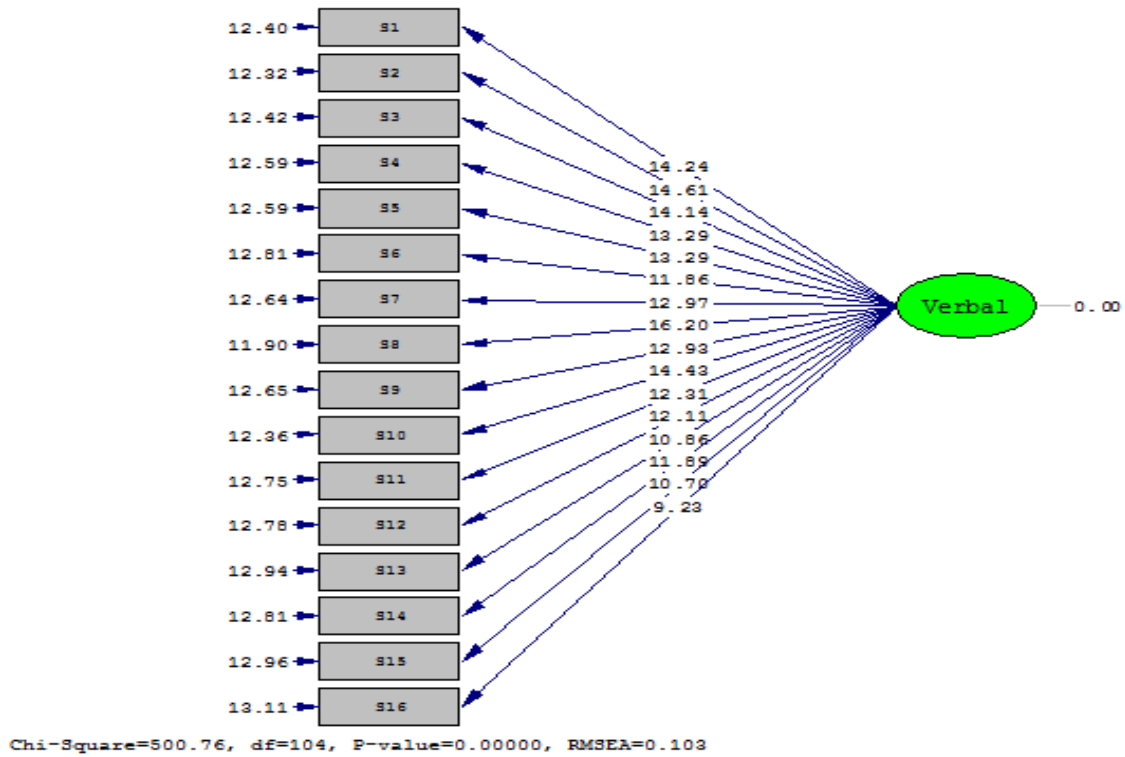


Figure 2. VSDTS Confirmatory Factor Analysis Path Diagram (t values).

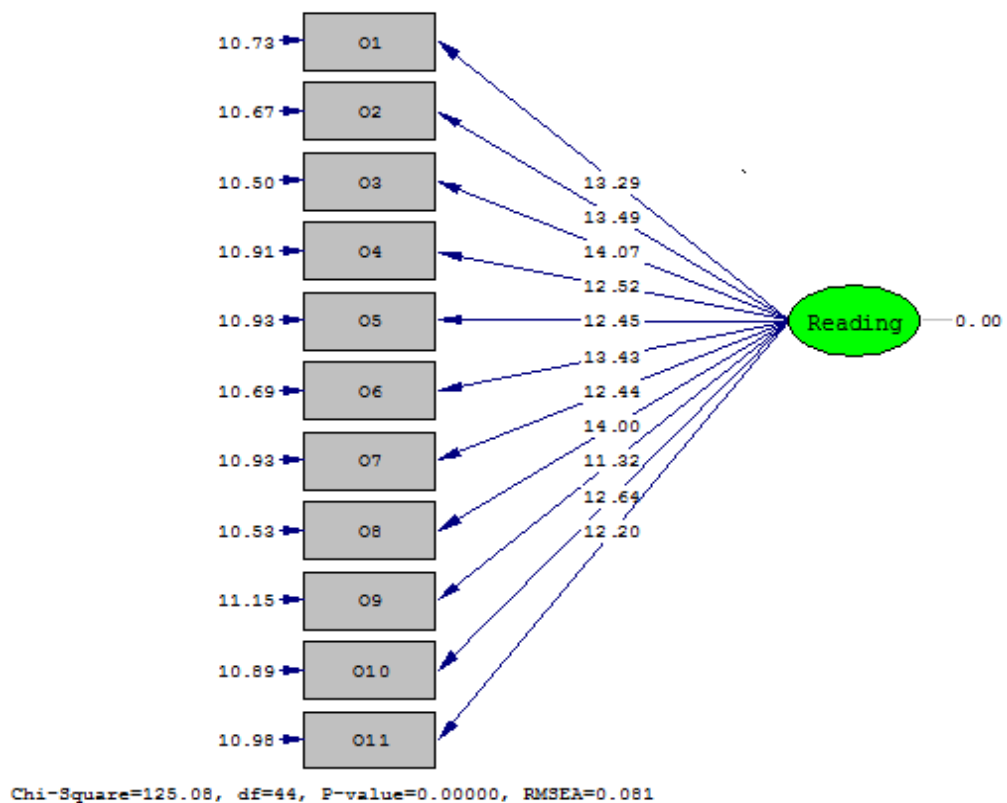


Figure 3. RSDTS Confirmatory Factor Analysis Path Diagram (t values).

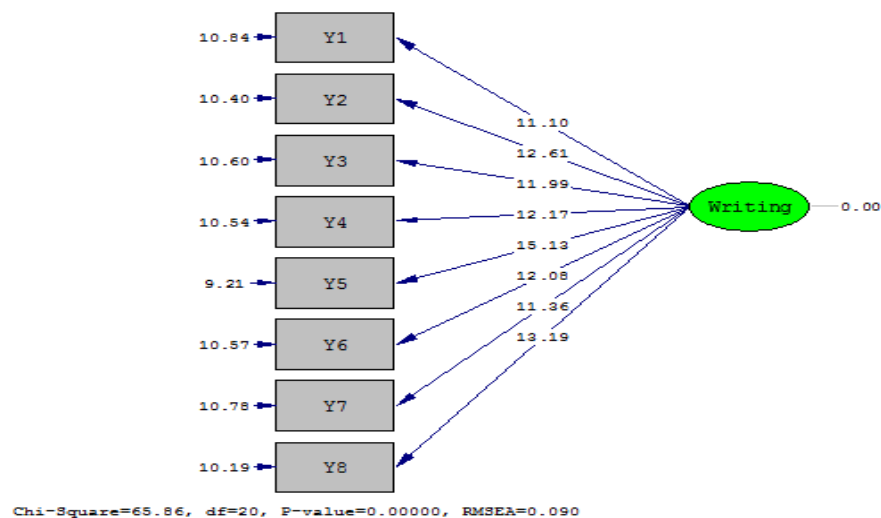


Figure 4. WSDTS Confirmatory Factor Analysis Path Diagram (t values).

Table 7. Corrected Item-Total Correlation and Cronbach's Alpha if Item Deleted of SBGG, OBGG, and YBGG.

VSDTS	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted	RSPTS	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted	WSDTS	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
M1	0.726	0.922	M1	0.559	0.889	M1	0.604	0.866
M2	0.734	0.921	M2	0.695	0.882	M2	0.632	0.863
M3	0.721	0.922	M3	0.699	0.882	M3	0.663	0.860
M4	0.670	0.924	M4	0.624	0.886	M4	0.594	0.867
M5	0.681	0.923	M5	0.511	0.892	M5	0.644	0.862
M6	0.565	0.926	M6	0.531	0.891	M6	0.652	0.862
M7	0.698	0.922	M7	0.600	0.887	M7	0.670	0.860
M8	0.743	0.921	M8	0.739	0.880	M8	0.677	0.859
M9	0.612	0.925	M9	0.648	0.884	-	-	-
M10	0.690	0.923	M10	0.667	0.883	-	-	-
M11	0.602	0.925	M11	0.627	0.886	-	-	-
M12	0.701	0.922	-	-	-	-	-	-
M13	0.583	0.925	-	-	-	-	-	-
M14	0.637	0.924	-	-	-	-	-	-
M15	0.554	0.926	-	-	-	-	-	-
M16	0.428	0.929	-	-	-	-	-	-

Table 8. Confirmatory Factor Analyses Results for VSDTS, RSDTS and WSDTS Scales.

Item	VSDTS				RSDTS				WSDTS			
	Standardized factor loadings	T value	Error variance	R ²	Standardized factor loadings	T value	Error variance	R ²	Standardized factor loadings	T value	Error variance	R ²
1	0.46	13.00	0.25	0.46	0.51	13.29	0.26	0.50	0.48	11.08	0.36	0.39
2	0.45	13.02	0.22	0.46	0.43	13.49	0.18	0.51	0.45	12.59	0.22	0.48
3	0.42	13.47	0.21	0.49	0.47	14.07	0.18	0.55	0.47	11.97	0.28	0.44
4	0.41	12.61	0.24	0.44	0.47	12.52	0.26	0.46	0.47	12.15	0.27	0.45
5	0.43	12.57	0.26	0.45	0.45	12.45	0.24	0.46	0.58	15.10	0.21	0.62
6	0.42	12.50	0.33	0.43	0.51	13.43	0.25	0.51	0.42	12.06	0.22	0.45
7	0.44	12.48	0.30	0.44	0.45	12.44	0.24	0.46	0.44	11.34	0.28	0.41
8	0.53	14.35	0.22	0.55	0.50	14.00	0.21	0.54	0.45	13.37	0.19	0.51
9	0.44	12.22	0.29	0.44	0.44	11.32	0.30	0.39	-	-	-	-
10	0.47	12.54	0.25	0.47	0.53	12.64	0.33	0.47	-	-	-	-
11	0.45	12.00	0.35	0.43	0.46	12.20	0.27	0.44	-	-	-	-
12	0.38	10.91	0.27	0.38	-	-	-	-	-	-	-	-
13	0.37	10.74	0.33	0.38	-	-	-	-	-	-	-	-
14	0.44	11.02	0.37	0.38	-	-	-	-	-	-	-	-
15	0.33	11.22	0.27	0.39	-	-	-	-	-	-	-	-
16	0.31	11.47	0.34	0.39	-	-	-	-	-	-	-	-

matrix, it is not expected to be significant. T values obtained through confirmatory factor analysis path diagram provide information on how much the latent variables explain the observed variables. If the t value is over 1.96, it is significant at 0.05 level of significance and if it is over 2.56, it is significant at 0.01 level of significance. When t values are below 1.96, they are not considered significant (Çokluk et al., 2012). As a result of analyses, p value for all three scales was found to be significant at 0.00 level of significance. However, in large samples the probability of having significant p values is high (Yılmaz and Çelik, 2009). Hence, alternative fit indices are used to examine the concordance between the expected and monitored covariance matrices (McDonald and Moon-Ho, 2002; Schermelleh-

Engel et al., 2003; Joreskog and Sörbom, 2001). For instance, according to Joreskog and Sörbom (2001), the most commonly used indices are goodness of fit index (GFI), adjusted goodness of fit index (AGFI), normed fit index (NFI), root mean square residual (RMR) and root mean square error of approximation (RMSEA). In this study, GFI, AGFI, NFI, RMR, SRMR and RMSEA were taken into consideration in the framework of confirmatory factor analysis. Table 9 presents the other fit index values and levels for the scales.

Examination of fit indices presented in Table 9 shows the χ^2/sd ratio for VSDTS as 4.81; for RSDTS as 2.76 and for WSDTS as 3.18. In small samples, $\chi^2/sd \leq 2.5$ points to substantial fit, while $\chi^2/sd \leq 3$ means substantial fit in large samples (Kline, 2005). When this ratio is below 5, the fit is

moderate (Sümer et al., 2006). Considering the obtained χ^2/sd values, it can be argued that VSDTS scale has acceptable level of fit, WSDTS scale has moderate level of fit and RSDTS scale has substantial level of fit.

VSDTS (RMSEA) was calculated to be 0.103. The calculated value corresponded to weak goodness of fit in RMSEA (≤ 0.10) (Tabachnick and Fidell, 2001). RSDTS (RMSEA) was found to be 0.081 and WSDTS (RMSEA) was 0.090. RSDTS and WSDTS RMSEA values point to acceptable goodness of fit values (Schermelleh-Engel et al., 2003). VSDTS (SRMR) was found as 0.028, RSDTS (SRMR) as 0.43 and WSDTS (SRMR) as 0.45. VSDTS (RMR) was measured as 0.032, RSDTS (RMR) as 0.021 and WSDTS (RMR) as 0.021. SRMR and RMR values below

Table 9. Fit values and levels for the suggested models.

Fit Index	Suggested Goodness-of-Fit Values					
	VSDTS		RSDTS		WSDTS	
χ^2/sd	4.81	Moderate	2.76	Substantial	3.18	Moderate
RMSEA	0.103	Weak	0.081	Acceptable	0.090	Acceptable
SRMR	0.028	Substantial	0.043	Substantial	0.045	Substantial
RMR	0.062	Good	0.021	Substantial	0.021	Substantial
GFI	0.85	Acceptable	0.93	Good	0.95	Substantial
AGFI	0.81	Acceptable	0.89	Acceptable	0.90	Good
NFI	0.93	Good	0.97	Substantial	0.96	Substantial
CFI	0.95	Substantial	0.98	Substantial	0.97	Substantial

0.05 point to substantial goodness of fit while values below 0.08 point to good fit (Brown, 2006; Çokluk et al., 2012). In this case, VSDTS, RSDTS and WSDTS scales point to substantial goodness of fit.

VSDTS GIF was measured as 0.85, AGFI as 0.81; RSDTS GFI was measured as 0.93, RSDTS AGFI as 0.89 and WSDTS GFI was measured as 0.95 and AGFI as 0.90. Values over 0.85 in GFI and AGFI indices indicate acceptable fit (Yılmaz and Çelik, 2009). While values over 0.90 point to good fit, values over 0.95 point to substantial fit (Hooper et al., 2008). However, as cited in Yurt and Sünbül (2014), Anderson and Gerbing (1984), Jöreskog and Sörbom (1993), Cole (1987), and Marsh et al. (1988) regard AGFI ≥ 0.80 as acceptable fit values.

Compared with suitability of H_0 hypothesis, the following values show increase in the fit by using the assumed model (Mels, 2003): VSDTS (NFI)= 0.93; RSDTS (NFI)= 0.97; WSDTS (NFI)=0.96; VSDTS (CFI)=0.94; VSDTS (CFI)=0.95; RSDTS (CFI)=0.97; WSDTS(CFI)=0.97. CFI index values over 0.95 point to substantial fit (Tabachnick and Fidell, 2001).

Based on the results of these analyses, it can be argued that the scales in general had a good fit with the data and factor structure confirmed.

Conclusion

Three separate scales were developed in this study to assess teaching candidates' perceptions of their self-efficacy in developing students' verbal, reading and writing skills. Factor analyses used for the scales show that all three scales had a single factor structure. Principal component analysis conducted in the framework of exploratory factor analyses shows that VSDTS, RSDTS and WSDTS values were very good for the assessment of the teachers' perception of their self-efficacy.

Good NFI and RMR values and SRMR CFI values over 0.95 in confirmatory factor analysis of VSDTS point to substantial fit. Good GFI values, NFI and CFI values over 0.95 and SRMR and RMR values below 0.05 in

confirmatory factor analysis for RSDTS point to substantial fit. Good AGFI values, GFI, NFI and CFI values over 0.95 and SRMR and RMR below 0.05 in confirmatory factor analysis for WSDTS point to substantial fit.

CONFLICT OF INTERESTS

The author has not declared any conflicts of interests.

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Full Length Research Paper

The evaluation of prospective teachers' attitudes towards citizenship and citizenship education

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This study aims to determine the attitudes of prospective teachers studying pedagogical formation education towards citizenship and citizenship education based on their gender, area of specialization, ethnicity and geographical area. This study explains the global implications of the concepts of citizenship, and citizenship education. A quantitative approach using questionnaire survey was adopted for this study. The sample of the study consists of 460 prospective teachers. They were selected from 1000 prospective teachers studying pedagogical formation education in 2016 to 2017 academic year, with maximum variation sampling method. For data collection, patriotism attitude scale and patriotism education scale were used. Patriotism attitude scale involves "blind citizenship" and "constructive citizenship" while patriotism education scale involves a single dimension. The data collected were analysed with independent sample t test, one way Anova, least significant difference (LSD), Bonferonni, Dunnett's C as well as mean, and standard deviation. The investigation revealed that there was a significant difference in the attitudes of the prospective teachers towards citizenship and citizenship education based on their area of specialization and ethnicity, but there was no difference in their attitude in relation to their gender and geographical location. In other words, the conclusion drawn is "gender" and "geographical area" variables did not play a crucial role in the formation of prospective teachers' attitudes towards citizenship (either blind citizenship or constructive citizenship), and towards citizenship education; although "ethnicity" and "major" variables played an important role in their attitudes towards citizenship and citizenship education. On one hand, those who called themselves Kurds and those who called themselves Turks had different understanding of citizenship and citizenship education. On the other hand, those that participated in the pedagogical formation program from natural sciences departments and those that participated in the program from humanities departments had a distinct understanding about citizenship and citizenship education.

Key words: Citizenship, citizenship education, teacher education.

INTRODUCTION

Science, scientific attitudes, and scientific beliefs seem to be crucially effective in the formation of the lifestyles of modern societies as well as in forming their

understanding of citizenship and citizenship education. Pepeler (2012) talks about "an education mentality" which primarily focuses on the technological and practical

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efficacy of education. He contrasts it with an education policy in which thought exercises are of primary importance through which students gain some crucially positive attitudes and values that help them become responsible citizens in addition to gaining technological expertise, skills and knowledge required for their major education. This point will be evaluated later, hinting on the fact that the importance of the humanities has gradually decreased in modern education institutions due to some economical and practical concerns which make students and prospective teachers focus merely on the short-term consequences of education.

Citizenship and Human Rights Education (CHRE) is one of the top, "indispensable" priorities of the modern society. Societies living in different geographical locations need to create better communication with other societies because of global requirements. The continuity of this communication in a healthy way can only be possible with a universal understanding of citizenship and human rights. For this reason, "citizenship" and "human rights" are among the most important junctive points through which modern societies can create their best international relations. This is what motivated us to investigate and interpret the prospective teachers' attitudes towards citizenship and citizenship education.

Citizenship and human rights are different yet complementary notions. As a notable universal application starting with Magna Charta, citizenship and human rights became an indispensable priority of almost all societies with its continuing development cycle in the form of published international declarations. To be specific, human rights and citizenship violations motivate societies to make use of effective sanctions including declaration of war, if not frequently.

Therefore, to develop a modern society without violence, the confusion regarding citizenship and human rights needs to be clarified and put into effect by means of education. For this reason, the theoretical, scientific and applicative aspects of this process deserve careful attention and investigation. The number of researches on such an important topic is unfortunately very limited. It seems more clearer that the more importance we attach to citizenship and human rights in our education programs, both in terms of quality and quantity, the more optimistic and humane world we may hope for our prospective children.

The concept of homeland signifies the country where one is born and raised or is where one feels attached to emotionally (Büyük, 1986) or a place where common life and common ideals take place in such a way as to allow for individual definitions, abilities and forms of expression. People who share similar culture and ideals and who have the common bond of unity experience such a partnership in a specific piece of land. Homeland is defined as the place where this partnership takes place (Doğan, 2001).

We can define the concept of homeland, which we also refer to as country today, as an area of sovereignty and a

piece of land in its borders (Doğan, 2001). It is clear from the definition that this border is a piece of land including both underground and above ground, on which both aliens and citizens live, in which a series of rules are in place, to which citizens relate with the bond of citizenship.

However, the concept of homeland in terms of quality has been understood and interpreted differently in the historical process. In other words, there are important differences between the modern and traditional definitions of homeland. These definitions may also differ from age to age, from society to society, and from culture to culture, depending on which understanding and practices of education and which forms of government are endorsed.

In brief, "homeland" is where people are not only born and grown up, but also equipped with social values, where they acquire their national identities. Therefore, it is a sacred place where humans are praised for being a part of, honoured to serve and they are ready to make every sacrifice including facing death if necessary (Yılmaz, 2000).

Citizen

A citizen is synonym for a member of a nation (Büyük, 1986); a person who has civil and political rights, and suffrage in a state (Antonym of alien) (Büyük, 1986). According to Harvey (1997), a citizen is a person that lives in a state, protected by law, has right to vote in elections, is able to understand responsibilities of a citizen protected by that law, pays taxes and accepts rights of others. According to Vural (2000), citizens are all people living in the same homeland and who are connected to the same state with the same bond of citizenship. All states determine who a citizen is with the law. In the Constitution of The Republic of Turkey, article 66 says, "every person who is bonded to Turkish State with the bond of citizenship is Turk".

Citizenship

Today, the concept of citizenship is defined differently in different countries according to their social, cultural, economic and geo-political positions. However, as the world becomes a global village, it is inescapable that these definitions have some common reference points. While Balasubramanian (quoted: Rozemeijer, 2001: 16) defines citizenship as a person's ability to contribute to the society's progress and development, Monoye (quoted: Rozemeijer, 2001: 16) defines it as relationships between people and the state. Therefore, it is a process that consists of mutual duties and responsibilities between the individual and the state. The nature of this process is determined by the state's culture, lifestyle, and political structure, geopolitical and economical features.

But those determinative features, especially with the help of the recent rapid changes and social relations seem to have turned into a universal feature.

Meaning of citizenship education

If we consider citizenship as a legal connection between a citizen and the state, citizenship education is a preparatory education activity for individuals to take part in this process. According to Davies (2000), citizenship or citizen education is the process of activities that fully prepare young people for their roles and responsibilities as citizens.

The word citizenship implies "right" and "responsibility". When we say "right", what comes into mind is the right given to an individual by a certain society and when we say "responsibility", we remember the duties of an individual to a society or state. These two elements need to be considered together with the concept of citizenship. In democratic societies, "right" and "responsibility" are discussed together; in fact, in those societies, rights have more priority. On the other hand, in societies without complete democratization, the aspect of duty is given more priority and concept of rights are kept in the dark (Kincal, 1998).

In the report "Democracy Teaching and Citizenship Education in Schools" in 1998, citizenship education is defined as the act of educating individuals who know and act upon their duty as citizens at the same time; it is not only providing knowledge about citizenship and society but also teaching other developments, skills and insight to explain the large subjects like environmental education, development education and peace education (Davies, 2000).

Keeping this in mind, "citizenship education" may be defined as a doctrine that gives information about the rights and duties of the individuals living in an organized society, the duties and responsibilities of the people to each other and their relations with various institutions and organizations in society (Nomer, 1983). Therefore, citizenship education is not only based on knowledge, but also focuses on the act of knowing the rights and duties of individuals within and outside the society.

It is evident that, there is no such thing like freedom without any limits. Such kind of freedom is only partially feasible for a limited number of individuals in societies that are governed by dictators. This is contrary to the common principles of today's understanding. The intensity of human relations and globalization has made these kinds of practices almost impossible. Recently, because of those reasons many governments have had to leave their place to more democratic and liberal governments. It will be possible for all people to have equal rights and duties only through just usage of rights and duties.

The state will gain more respect in an environment

where separations and privileges are gradually erased. As a natural result of these developments, the concept of the state which is suspicious about its citizens will be abandoned; instead, a concept of state that trusts on its citizens will rise.

Objectives of citizenship education

Active citizenship education involves three main interrelated qualities. These are social and moral responsibility, social participation and political consciousness. To create this consciousness the following must occur:

1. Helping young people understand their social and moral responsibilities towards each other and against authority.
2. Creating opportunities for children to be active in school and the social environment.
3. Teaching young people to understand how a broad political system works, helping them learn how they can function in such system by becoming active, critical and responsible citizens. These aspects are considered the necessary subjects in citizenship education (McGonigle, 1999).

Certainly, the duties and responsibilities of citizens are not just to abide by the law and to be respectful. Adopting the customs and traditions of the society, trying to protect them, and most importantly, to carry the culture of the society to the next generations are also required (Büyükkaragöz and Kesici, 1998). Because culture exhibits dynamic features, it is necessary for citizens to get education to be creative and especially to be adaptable to recent changes. Today, certain behaviours limited to a single culture are about to vanish. For this reason, one of the most important functions of education is its unifying power which is value-laden.

Aspects of citizenship education

The tribal culture in traditional societies has given way to universal culture, and traditional education has given its place to modern education; and antidemocratic governments have left their place to democratic governments. No longer lives the individual only in his own society but is almost intertwined with other societies. This requires active harmonization of individuals with the lifestyles of other societies. If democracy is based on personality rights, freedom of expression and thought, the content of the education system should always provide the young with these freedoms (Menter and Walker, 2000).

When we look at educational objectives, we observe that this covers areas such as individuals, society and

subjects (Tekin, 1984). We see that these dimensions cover firstly the individual, secondly the country and thirdly the world in which an individual lives with people from other countries (Kıncal, 1998).

Lynn gives the following explanation regarding this issue: "The goal of citizenship education in schools and colleges is to make individuals value the features of democratic participation, to ensure the rights and responsibilities at a high level and to make choices without the need for responsibility for their development within active citizenship awareness. Citizenship education involves learning and developing human rights and responsibilities: social and moral responsibilities, community involvement and politics. Citizenship gives students an effective role in society and the region, as well as knowledge, skills and understanding at national and international levels" (Davies, 2000).

Citizenship is simply the fulfilment of the rights and obligations of the individual in the framework of law and certain principles. One of the main tasks of education is to help them socialize or, in other words, to make them sociable. Smith, Stanley and Shores (quoted, Fidan and Erden, 1993: 19) broadly define education as all social processes that influence the teaching of individual society standards, beliefs and ways of living. Citizenship is the resulting reflection of events that are much more extensive than these.

Another important point in citizenship education is that it includes both national and international aspects. People get into relations with foreigners, travel with them, build family bonds with them, and interact with them through internet. Global citizenship requires being a part of a global community or living in confidence in different communities around the world. Oxfam (quoted: Harvey, 1987) suggests that a global citizen should have the following characteristics:

1. Being aware of the world and seeing their role as world citizens.
2. Respect for different values.
3. Being willing to build more equal and powerful peace in the world.
4. Taking responsibility to make others active.

According to Harvey (1997), citizenship education should have the following three features:

1. Social and moral responsibility: To learn that both self-reliance, social and moral behavioural responsibilities belong to one group in the sense of authority.
2. Learning to live with society: Learning to be helpful to their neighbours and in their lives.
3. Political consciousness: To learn how to be influential in institutions, solving problems, democratic practices and in social, national, regional, and political contexts.

Jones and Theresee (2001) argue that there are five

main issues related to citizenship:

1. Politic consciousness
2. Rights
3. Differences between duties and rights
4. Interests in benefits of democratic values
5. Citizen rights and public participation

Again, referring to Crick (1998) report in the same article, it is said that the report focuses on three characteristics, and that these features emphasize unity in the formation of citizenship. These three characteristics are: Social and moral responsibilities, social participation and political consciousness.

Purpose of the study

The purpose of this study is to determine the attitudes of the prospective teachers towards citizenship and citizenship education depending on some variables, and to evaluate the concepts of citizenship and citizenship education.

Sub problems of research

The sub-problems that need to be answered in the framework of the problem described above are:

Do prospective teachers' attitudes towards citizenship and citizenship education differ according to:

1. Their gender
2. Their major
3. Ethnicity
4. Geographical area where they spend most of their lifetime?

METHODOLOGY

This section contains information about the model of the research, the population and sample, data collection tools, and data analysis.

Research model

Survey-type research model was used in this study because the aim of this research is to investigate the attitudes of prospective teachers studying pedagogical formation education to citizenship and citizenship education and to investigate relations with various variables. The survey model is a research approach used to describe past or existing situation as it exists (Karasar, 2005).

Population and sampling of the study

The population of the research consists of 1000 prospective teachers studying Pedagogical Formation Education in 2016 to

2017 academic year in Faculty of Education at Inonu University. They are from different undergraduate education departments like social sciences, natural sciences, theology, art, health etc. The maximum variation sampling method was used in the selection of the research sample. For this reason, the research sample was chosen to reflect the variables (sex, department, region, ethnicity etc.) of the study. 460 prospective teachers participated voluntarily in the research. 460 forms were returned from the questionnaire distributed. 51 forms were not used for analysis. These forms were removed during the process of checking the validity, reliability and normality of the study. A total of 409 forms were used for data analysis.

Data collection tools

The survey form used as a data collection tool in the research consists of three parts:

1. Personal information form
2. Patriotism attitude scale and
3. Patriotism education scale.

Personal information form

In the personal information form used to determine the demographic characteristics of the potential teachers in the survey, the participants were asked about their gender, teaching areas, the way they describe themselves, and the geographical regions where they have spent most of their lives.

Citizenship attitude scale

This scale was adapted to Turkish by Yazıcı (2009) and Schatz et al. (Schatz (1999; quoted, Yazıcı, 2009)) which was developed to differentiate between blind and constructive patriotism and their relation to other social phenomena. The original scale was prepared by Schatz, Staub and Lavine with an appeal to the preliminary work of Schatz (1994). In the internal reliability analysis of the scale used in this study, the Cronbach's alpha coefficient was calculated as 78. To determine the structural validity of the scale, descriptive factor analysis and Varimax Rotation Method was used. In the reliability study, the number of factors is limited to two. In the factor analysis, blind patriotism items were collected under the first factor and constructive patriotic items were collected under the second factor. The Patriotism Attitude Scale consists of 20 items with a blind patriotic dimension of 12, and a constructive patriotic dimension of 8. The responses to the 5-point Likert-type scale are; "I strongly disagree", "I disagree", "Undecided", "I agree" and "I strongly agree".

Citizenship education scale

The scale developed by Yazıcı (2009) was used to measure the attitudes towards patriotism education. The one-dimensional scale aims to measure the general attitude of teachers towards patriotism education. There are 10 questions on the scale. The responses to the scale developed on 5-point Likert-type scale are; "I strongly disagree", "I disagree", "Undecided", "I agree" and "I strongly agree".

Data analysis

Data collected from the study are analysed with independent sample t test according to gender; while the data were analysed

with one way Anova, LSD, Bonferonni, Dunnett's C according to major, ethnicity and geographical area. Additionally, the mean, standard deviation is used for the analysis.

FINDINGS AND DISCUSSION

In this section, the results of the analysis of the attitudes of the prospective teachers towards citizenship and citizenship education based on their gender, department, ethnicity and geographical area are given. The findings are interpreted in accordance with the results of analysis.

Does the attitude of the prospective teachers towards citizenship and citizenship education differ according to their genders?

Independent sample t test was used to analyze the attitudes of prospective teachers towards citizenship and citizenship education according to gender. The results of the analysis are given in Table 1. Table 1 shows the attitudes of prospective teachers towards blind citizenship, constructive citizenship, and citizenship education.

Based on the data, it is concluded that the differences between the sexes are not significant. However, when the average scores are examined, it is observed that the blind citizenship scores in both women and men are higher than the scores in other dimensions. This result shows that people are not much interrogative about the formation of citizenship attitudes. Blind citizenship scores $x = 33.30$ to $x = 33.71$, constructive citizenship scores $x = 30.85$ to $x = 30.88$, and citizenship education attitude scores $x = 29.61$ to $x = 28.64$.

Does the attitude of the prospective teachers towards citizenship and citizenship education differ according to their majors?

Variance analysis was conducted to determine the difference of attitude toward citizenship and citizenship education in accordance with the majors of prospective teachers. One Way Anova results are shown in Table 2. According to the One-Way ANOVA results, it was determined that there is a significant difference in the dimensions of constructive citizenship and citizenship education. Post hoc tests need to be performed to determine which groups differ between these two dimensions. It is necessary to first determine whether the distribution of variances is equal to decide which post hoc test is to be performed. So, the results of the Levene test should be examined. The results of the Levene test are given in Table 3.

Significant differences were found in the Citizenship Education dimension of the results of the Levene test. This result shows that the variances for the dimension constructive citizenship are equally distributed and the variances for the dimension citizenship education are not

Table 1. The independent samples t-test in terms of gender.

Variable	Gender	N	Mean	SS	t	p
Blind citizenship	Male	301	33.30	5.77	-0.619	0.536
	Female	108	33.71	5.94		
Constructive citizenship	Male	301	30.88	4.24	0.064	0.949
	Female	108	30.85	3.03		
Citizenship education	Female	301	28.64	4.25	-1.898	0.058
	Male	108	29.61	5.30		

Df:407.

Table 2. One way variance analyses scores according to prospective teachers' majors.

Variable		Sum of squares	df	Mean square	F	Sig.
Blind citizenship	Between groups	124.147	5	24.829	0.732	0.600
	Within groups	13671.193	403	33.924		
	Total	13795.340	408	-		
Constructive citizenship	Between groups	270.999	5	54.200	3.565	0.004
	Within groups	6126.389	403	15.202	-	-
	Total	6397.389	408	-	-	-
Citizenship education	Between groups	311.333	5	62.267	3.056	0.010
	Within groups	8210.354	403	20.373	-	-
	Total	8521.687	408	-	-	-

Table 3. Test of homogeneity of variances.

Variable	Levene statistic	df1	df2	Sig.
Constructive citizenship	0.302	5	403	0.911
Citizenship education	2.987	5	403	0.012

equally distributed. Least significant difference (LSD) test can be used to determine the difference between the groups in dimension of constructive citizenship. In the dimension of citizenship education, Dunnett's C was used in the post hoc tests because the variances were not equally distributed (Table 4).

According to Table 4, there were significant differences between the mean scores of the attitudes of the pre-service teachers' major they studied. The LSD test was used to determine which groups have significant differences in constructive citizenship dimension. The results of the analysis are given in Table 4.

From the analysis of the results in the dimension of constructive citizenship attitude, the difference between the social sciences and natural sciences, the social sciences and the fine arts, the natural sciences and the

health, the natural sciences, the theology and the natural sciences, and other fields are significant. Mean score of social sciences is highest in constructive citizenship. This can be considered as an expected result because the prospective teachers of social sciences are more knowledgeable and experienced about the citizenship.

The Dunnett's C test was used to determine which groups have significant differences in constructive citizenship dimension. From the analysis of the results in the dimension of citizenship education, there is a difference between fine art and theology, other major and theology. This result is quite significant. In social sciences where citizenship education is also related, it could be expected that attitude scores are higher than other groups. Citizenship attitude score was found to be very low in theology group. It can be argued that this situation

Table 4. Decriptive attitude scores according to prospective teachers' major.

Variable		N	Mean	Std. Deviation	LSD
Blind citizenship	Social Sciences	148	33.75	5.84	-
	Natural Sciences	68	33.22	6.12	
	Health	65	33.24	5.81	
	Theology	41	31.95	5.12	
	Fine Arts	37	33.67	6.03	
	Other Majors	50	33.92	5.72	
	Total	409	33.41	5.81	
Constructive citizenship	Social Sciences	148	31.65	4.05	Social with Natural; Social with Fine Arts; Natural with Health; Natural with Theology; Natural with Others
	Natural Sciences	68	29.33	4.23	
	Health	65	30.86	3.49	
	Theology	41	31.19	3.60	
	Fine Arts	37	30.21	4.08	
	Other Majors	50	30.88	3.51	
	Total	409	30.87	3.95	
Citizenship education	Social Sciences	148	28.52	4.22	Fine Art with theology; Other Major with theology
	Natural Sciences	68	29.23	4.81	
	Health	65	28.89	4.26	
	Theology	41	27.12	3.29	
	Fine Arts	37	30.75	6.30	
	Other Majors	50	29.62	4.54	
	Total	409	28.89	4.57	

is caused by the understanding of citizenship depending on the religious values that the group has. As a result, it is possible to find similarities or differences in this work by examining the citizenship attitudes of other religions more extensively.

Do prospective teachers' attitudes towards citizenship and citizenship education differ according to their ethnicity?

Variance analysis was conducted to determine the change of prospective teachers' attitudes toward citizenship and citizenship education according to their ethnicity. One Way Anova results are shown in Table 5.

According to the One-Way ANOVA results, it was determined that there is a significant difference in the dimensions of blind citizenship. Post hoc tests need to be performed to determine which groups differ between these two dimensions. It is necessary to first determine whether the distribution of variances is equal to decide which post hoc test is to be performed. So, the results of the Levene test should be examined. The results of the Levene test are given in Table 6.

Significant differences were not found in the blind citizenship dimension of the results of the levene test. This result shows that the variances for the dimension of blind citizenship are equally distributed. Bonferonni test can be used to determine the difference between the

groups in dimension of blind citizenship (Table 7). As seen in Table 7, there are significant differences between the mean scores of the attitudes of the prospective teachers in dimension of blind citizenship according to their ethnicity.

According to bonferroni test results, it was determined that the difference is between Turkish and Kurdish. From this, it was observed that the mean score of blind citizenship of those who call themselves Turkish is higher than the mean score of those who call themselves Kurdish (Turkish \bar{X} = 34.02 and Kurdish \bar{X} = 31.20).

In other words, the group that calls themselves Kurdish has a more critical character than the group, regarded as Turkish, about the citizenship of the group. In addition, according to the mean scores of attitudes based on their ethnicity, it is observed that the blind citizenship average score (\bar{X} = 33.41) is higher than the constructive citizenship score (\bar{X} = 30.87) and the constructive citizenship score is higher than the citizenship education mean score.

Do prospective teachers' attitudes towards citizenship and citizenship education differ according to geographical area where they spent most of their lifetime?

Variance analysis was conducted to determine the

Table 5. Anova test results according to their ethnicity.

Variable		Sum of Squares	df	Mean Square	F	Sig.
Blind citizenship	Between groups	462.208	2	231.104	7.037	0.001
	Within groups	13333.132	406	32.840	-	-
	Total	13795.340	408	-	-	-
Constructive citizenship	Between groups	54.654	2	27.327	1.749	0.175
	Within groups	6342.734	406	15.622	-	-
	Total	6397.389	408	-	-	-
Citizenship education	Between groups	6.102	2	3.051	0.145	0.865
	Within groups	8515.585	406	20.974	-	-
	Total	8521.687	408	-	-	-

Table 6. Test of homogeneity of variances.

Variable	Levene Statistic	df1	df2	Sig.
Blind citizenship	1.518	2	406	0.220

Table 7. Descriptive attitude scores according to their ethnicity.

Variable		N	Mean	Std. Deviation	Bonferroni
Blind citizenship	Kurd	71	31.19	6.15	Kurd-Turk
	Turk	292	34.01	5.71	
	Other	46	33.02	5.10	
	Total	409	33.41	5.81	
Constructive citizenship	Kurd	71	30.63	4.53	-
	Turk	292	31.07	3.85	
	Other	46	29.95	3.54	
	Total	409	30.87	3.95	
Citizenship education	Kurd	71	28.87	5.75	-
	Turk	292	28.95	4.36	
	Other	46	28.56	3.83	
	Total	409	28.89	4.57	

change of prospective teachers' attitudes toward citizenship and citizenship education according to geographical area where they spent most of their lifetime. One Way Anova results are shown in Table 8. According to the One Way Anova results, it was determined that there is no significant difference in the dimensions of blind citizenship, constructive citizenship and citizenship education. The mean scores range from $\bar{X} = 28.00$ to $\bar{X} = 34.15$ as shown in Table 9. When attitude scores according to geographical regions are examined, it is observed that the highest attitude scores belong to the Mediterranean region in blind citizenship, central Anatolia region in constructive citizenship and Mediterranean

regions in citizenship education.

CONCLUSIONS AND SUGGESTIONS

The main concern of this study is twofold: to determine the attitudes of prospective teachers who participated in pedagogical formation education towards citizenship and citizenship education, and to evaluate the consequences with the aim of shedding light on understanding the nature of future orientation of education.

The results of the empirical findings of this study provided us with the fact that perception of citizenship

Table 8. One way Anova test results according to geographical area where they spent most of their lifetime.

Variable		Sum of squares	df	Mean square	F	Sig.
Blind citizenship	Between groups	186.918	4	46.730	1.387	0.238
	Within groups	13608.422	404	33.684	-	-
	Total	13795.340	408	-	-	-
Constructive citizenship	Between groups	37.189	4	9.297	0.591	0.670
	Within groups	6360.199	404	15.743	-	-
	Total	6397.389	408	-	-	-
Citizenship education	Between groups	80.199	4	20.050	0.960	0.430
	Within groups	8441.488	404	20.895	-	-
	Total	8521.687	408	-	-	-

Table 9. Descriptive attitude scores according to geographical area where they spent most of their lifetime.

Variable		N	Mean	Std. Deviation
Blind citizenship	Nature A	281	33.62	5.96
	Southeast	38	33.13	5.21
	Central Anatolia	14	30.64	5.25
	Mediterranean	40	34.15	5.60
	Marmara	36	32.33	5.47
	Total	409	33.41	5.81
Constructive citizenship	Nature A	281	30.97	3.98
	Southeast	38	30.92	3.08
	Central Anatolia	14	31.14	3.13
	Mediterranean	40	30.85	3.29
	Marmara	36	29.91	5.38
	Total	409	30.87	3.95
Citizenship education	Nature A	281	28.86	4.34
	Southeast	38	28.39	4.55
	Central Anatolia	14	28.00	3.84
	Mediterranean	40	30.10	4.62
	Marmara	36	28.72	6.25
	Total	409	28.89	4.57

and citizenship education among teacher candidates are mostly formed and affected with their ethnic beliefs and fields of study, or majors. As for the first of these two variables, ethnicity seems to be significantly functional in prospective teachers' understanding of citizenship and citizenship education. This is probably the result of a minority psychology.

Keeping the fact that prospective teachers coming from ethnic minority have a different picture of citizenship and citizenship education is what future education programs should give priority to in preparing their young generations for a peaceful world. While citizenship and human rights in democracies, rights in developed

societies and responsibilities in totalitarian societies are indispensable for each other, cultural and educational backgrounds of societies seem to have been shaping their putting into practice of these crucial concepts.

As for the second variable, major or main field of study of prospective teachers seems to be functional in their understanding of citizenship and citizenship education. The results of the investigation show us that the differences between the mean scores of attitudes of blind citizenship, constructive citizenship and citizenship education for the prospective teachers were not significant. However, a difference of attitude was observed between the average scores of the attitudes of

the candidate according to their majors, or fields of study.

To be specific, the difference between the social sciences and the natural sciences, the social sciences and the fine arts, the digital sciences and the health, the natural sciences, the theology and the natural sciences, and other fields are significant. In social sciences attitude scores are higher than all the other groups, while citizenship attitude score is very low in theology group. This is a result of their religious world view from a first impression. However, the more important point here is to understand the impact of religion on prospective teachers' understanding of citizenship.

The findings of the study lead us to thinking that value-laden concepts such as citizenship and citizenship education need to be based on a universal and a philosophical understanding which is free from departmental and ethnical presumptions and prejudices in educational process. Global peace of the world seems to be dependent upon universally accepted beliefs in the final analysis.

Nowadays, universities all over the world seem to be giving the priority to practical and economical aspects of education. This involves providing students with technical expertise, and skills regarding their field of study, ignoring the significance of the project of making them sensitive and responsible citizens. Promoting and developing the humanities, or social sciences departments might be helpful in this regard. In other words, the departments and fields of studies focused on developing our humane values need to be revitalized in education process.

In sum, the social structure which is formed not only by the expectations of teacher candidates but also by the expectations of all groups that constitute the society needs special attention and deliberation. That the laws are shaped such as to meet the expectations of every member of society is another crucial point. There is no doubt that the educational activities need be carried out in accordance with rational, universal and culture-independent values and beliefs. This seems to be indispensable in creation of universal citizens.

The possibility that prospective teachers are the intermediate stuff in transmitting technical, and professional knowledge and skills to new generations seems to be a great threat to the future formation of educational process. While the educational institutions are providing the prospective teachers with the necessary equipment they should not take the risk of setting aside the humane values that make professional and technical acquisitions meaningful in the final analysis. All technical and technological achievements of educational process need to be subjected to a universal and humanitarian understanding of citizenship.

CONFLICT OF INTERESTS

The authors have not declared any conflict of interests.

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Full Length Research Paper

Evaluation of the physical education and sports curriculum in Turkish schools

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This study assesses the vocational education courses given in schools of physical education and sport at Turkish universities and their use in the life of professionals. This study investigates 55 male and 25 female participants, aged 24 to 49, randomly selected from among the physical education and sport teachers in government and private schools in the cities of Edirne, Tekirdag, and Kırklareli of the Trakya region of Turkey. The evaluation form includes 72 courses (questions) taken by the participants from departments of physical education and sport at universities in Turkey. The participants were given four weeks to assess the courses on the evaluation form according to their professional past experience. The participants gave scores from 0 (unimportant) to 5 (very important) to all courses. According to the study, in the opinion of physical education and sport teachers, some of the courses were not needed in their professional careers: (1) practical courses (education: wrestling, mountaineering, ski, judo, etc.), (2) theoretical courses (education: statistics, seminars and projects, Olympic sports, etc.) and (3) pedagogical formation (education sociology). As a result of this study, it was argued that the courses that received low scores on the evaluation should be re-evaluated or eliminated from the curriculum. Moreover, the course hours and contents could be rearranged and developed.

Keywords: Curriculum, physical education, sport, teacher, university.

INTRODUCTION

The roots of the curriculum field go back to the days of Herbert (1776-1841), who taught that learning requires an orderly attention for the selection and organization of subject matter. Herbert's views were applicable to physical education as well as other educational fields, and he was one of the first thinkers to recognize the essential nature of a properly conceived and structured program of physical activity (Willgoose, 1984).

Throughout the years, school systems became "curriculum-conscious" as they developed and revised

their subject matter plans (Siedentop, 1980). Caswell (1966) highlighted three important considerations: (1) The establishment of a consistent relationship between general goals and specific objectives to guide teachers, (2) a sound sequence of courses with continuity in the curriculum, and (3) ensuring balance in the curriculum. More recently, Haas (1977) extended these curricular considerations to include a concern for social forces as reflected in social goals, cultural uniformity and diversity, social pressures, social change, future planning, and

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concepts of culture.

Physical education has reached a level of sophistication at which serious thought can and should be given to a carefully reasoned and well-designed curriculum for the learner, one that can replace the disjointed divisions of the past and present (Willgoose, 1984).

Physical education in schools across the globe has undergone significant developments over the past century; however, for many years there has been much international concern about the status and future of this subject area (Dodds and Locke, 1984; Dunn, 2009; Hardman, 2013; Kirk, 2010; Lawson, 1998; Macdonald and Brooker, 1997; Onofre et al., 2012a, b; Sanders and McCrum, 1999; Tinning and Fitzclarence, 1992; Stier et al., 1994). Researchers have investigated the status of physical education in particular regions, nations, and internationally, with many of these investigations taking the form of surveys or case studies (Hardman, 2008, 2013; Hickson et al., 2012; Luke, 2000; Onofre et al., 2012a, b; Rivard and Beaudoin, 2005). Many of these investigations have included some examination of physical education curricula; however, there is a dearth of in-depth physical education curriculum document analysis.

Teachers are now performing their duties in a globalizing world where information and technology improve very quickly, national borders have started to disappear and intercultural interactions and communication increase. In order to educate teachers in such circumstances, changes made to education faculties and teacher training programs are important (Çelikten et al., 2005).

According to Locke (1984), physical educators should plan lessons in advance, adapt lessons to the needs of individual students, provide adequate opportunities to contribute to fitness, provide positive reinforcement for learning, avoid time-wasting managerial tasks, provide prompt and specific feedback for practice tasks, and provide clear models for desired learning. Balancing an ideal mix of subject matter content and pedagogical knowledge in the education of future teachers is an important issue (Ball, 2000). Teacher education programs are therefore faced with the challenging task of deciding what kinds of, and how much subject matter content and pedagogy preparation are needed for prospective teachers.

However, the education of physical education (PE) teachers has not been widely explored (Dodds, 2006). Although, the subject matter content knowledge and pedagogical knowledge are critical indicators of highly qualified PE teachers, little is known about how these types of knowledge are taught in Physical Education Teacher Education (PETE) programs.

“PETE programs are designed to facilitate preservice teachers’ progress toward being deemed ‘highly qualified’

upon entrance into the profession” (NASPE, 2007a). PETE programs should be accredited based on PETE standards and the faculty should model passion, reflection, and dedication (Napper-Owens et al., 2008). PETE programs should provide preservice teachers with substantial pedagogical and content knowledge bases; afford many opportunities for preservice teachers to participate in an array of field experiences where they can interact with veteran teachers and diverse students at all grade levels, while seeing the application of classroom principles and develop, nurture, and reinforce specific professional behaviors that facilitate student learning (NASPE, 2007b).

Highly qualified teachers need to contribute to their schools outside of their respective classrooms as well. For example, other important responsibilities that help define a “highly qualified teacher” include demonstrating professionalism and ethical behavior in the learning environment through positive interactions with students, colleagues, administrators, and community members (NASPE, 2007a; Yanik and Çamlıyer, 2015).

Although most of the criticisms of curriculum in physical education and sports have some merit, most problems are not caused by the use of curriculum in physical education and sports, but by its misuse. In most cases, a curriculum provides results that are more objective, accurate, and relevant. What is needed is a more professional use of the curriculum in physical education and sports with a greater emphasis on ways it can be used to improve pupil learning and development (Gronlund and Liin, 1990).

A curriculum model is a general pattern for creating or shaping program designs in educational settings; the model incorporates a conceptual framework and should be consistent with the theory upon which the framework is based (Jewett et al., 1995). Physical educators study curriculum theories in order to clarify educational philosophies and develop new perspectives. The nature and quality of future PE programs will depend largely on the insights and commitments of the professionals responsible for future curricular decision making (Bahneman, 1996).

Research in PETE programs has focused on curriculum alignment (Bulger et al., 2008); general descriptions of the curriculum, coursework, and practical experience of the teacher candidates (Ayers and Housner, 2008; Hetland and Strand, 2010); and the infusion of diversity within the curriculum (Burden et al., 2004).

In Turkey, as a result of changes in 1982, the duty of educating teachers was taken from the Ministry of National Education and vested in the universities. Within this period, the education faculties have significantly contributed to educating the qualified teachers that our educational system needs. With the establishment of a comprehensive program that started in the 2006/2007

academic year, the courses were classified as MB (Professional Knowledge), GK (General Culture), and AB (Area Knowledge). The content of optional courses was classified as AB, GK, and MB by the Council of Higher Education (YOK), but the courses are chosen individually by universities.

Therefore, the main purpose of this study was to investigate and describe the curriculum in Physical Education and Sports (PES), and courses given by the PES schools were evaluated to determine which courses were considered very important or unimportant. The questions in the public survey give the names of courses that are the same throughout all PES schools in Turkey.

Based on previous literature and experiences, this study discusses and evaluates the curriculum in PES. The study research question was whether the curriculum used in PES schools was useful to every city in Turkey. In addition, the study attempts to contribute to making good the common lack of knowledge of the curriculum of PES schools.

METHODOLOGY

Participants

The sample set of this study was selected from among PES teachers working in government and private schools in the cities of Edirne, Tekirdag, and Kırklareli in the Trakya Region of Turkey. The evaluation form was given to female ($n = 25$) and male ($n = 55$) respondents, for a total of 80 participants. Their ages were between 24 and 49 years old and they agreed voluntarily to participate in the study. The occupational experience of the participants ranged from 3 to 25 years. The participants in the study were randomly selected.

Instruments

Public survey

The public survey in this study includes 72 courses (22 practical, 36 theoretical, and 14 pedagogical formation courses) offered by PES departments of universities in Turkey. The participants scored all courses taken at universities in Turkey from 0 (unimportant) to 5 (very important). The purpose of this research is to determine which courses are more important and those that are considered unimportant in the PES curriculum, using the concepts of a "Likert Scale" and "Likert-type items". The participants completed the evaluation form within four weeks.

Data analysis

Statistical analysis was performed using the Statistical Package for Social Sciences (SPSS). All data collected through the public survey were analysed by descriptive statistics, particularly the mean (X) and standard deviation (SD).

RESULTS

As stated earlier, 80 PES teachers (25 females and 55

males) participated in the study. The means and standard deviations of the ages of the educators were 33.8 ± 8.0 years and their years of experience were 9.6 ± 6.8 years, with a minimum of 3 years and a maximum of 25 years.

Table 1 shows that practical lessons that are rated effective in schools in Turkey are basketball, celebratory ceremony, volleyball, soccer, track and field, handball, gymnastics and table tennis. Table 2 shows that PES teachers indicated that theoretical courses in the PES teaching departments at universities were effective and necessary in their professional life.

Table 3 shows that PES teachers indicated that the pedagogical formation courses they learned at university faculty were effective in their professional lives.

DISCUSSION

A well-trained PE teacher should be able to effectively perform sports activities as well as teach them effectively. For this reason, programs that train physical educators should aim at developing the skills related to physical activities as well as developing teaching behaviours related to them.

The aim of a PE program is to create an environment for acquiring knowledge and competence in fundamental motor skills, physical fitness, athletics, swimming and other water sports, sports and games, leisure activities, dance, rhythmic gymnastics, and outdoor activities (Prskalo et al., 2007). However, highly qualified PE teachers understand the importance of meeting the needs of all types of learners and should use the outcomes provided in the national standards to elicit ideas for a variety of instructional strategies to do so. Students should be encouraged to be physically active inside and outside of the school setting.

The results of this study demonstrated that the PE courses in Table 1 should be widely encouraged in the PES curriculum. Acıkada (1992) found results similar to those of our study. Most of the same courses listed in Table 2 were found very important for PES teachers (Acıkada, 1992). The content of teacher education programs should align with extant subject matter standards. This means that the formal study of teaching should focus on teaching important ideas in core academic subjects rather than on generic teaching skills such as lesson planning and classroom management (Kennedy, 1997). The content of teacher education programs should emphasize the relationship between teaching and learning (McIntyre, 1996).

"In an ideal world, PETE programs would provide prospective teachers with subject-matter knowledge related to the physiology, anatomy, and neuromuscular structures of the body, and an understanding of how these systems respond and adapt to physical activity" (Bulger et al., 2008). Indeed in our study, anatomy and

Table 1. Practical courses taken in department of physical education and sports in universities.

Physical education and sports (Practical Courses) (n=80)	X ± SD	Physical education and sports (Theoretical Courses) (n=80)	X ± SD
Basketball	4.78 ± 0.42	Artistic gymnastics	2.72 ± 1.02
Celebratory ceremony	4.78 ± 0.49	Tennis (Court)	2.63 ± 1.50
Volleyball	4.75 ± 0.51	Badminton	2.53 ± 1.50
Soccer	4.66 ± 0.65	Wrestling	1.87 ± 1.45
Track and field	4.62 ± 0.61	Mountaineering	1.69 ± 1.51
Handball	4.59 ± 0.80	Bicycle	1.66 ± 1.56
Gymnastics	4.50 ± 0.72	Archery	1.59 ± 1.50
Table tennis	4.09 ± 1.09	Ski	1.56 ± 1.59
Rhythm education and sports	3.66 ± 1.36	Judo	1.53 ± 1.39
Swimming	2.94 ± 1.81	Wrestling with oil	1.34 ± 1.49
Rhythmic gymnastics	2.91 ± 1.47	Golf	1.06 ± 1.29

X: Mean; SD: standard deviation.

Table 2. Theoretical courses taken in department of Physical Education and Sports in Universities.

Physical education and sports (Theoretical Courses) (n=80)	X ± SD	Physical education and sports (Theoretical Courses) (n=80)	X ± SD
First aid and lifeguard	4.81 ± 0.47	Human anatomy and kinesiology	3.94 ± 0.95
Training theory	4.75 ± 0.57	Recreation and leadership	3.88 ± 0.91
Health education	4.66 ± 0.60	Advance training theory	3.81 ± 1.40
Sports injuries and rehabilitation	4.56 ± 0.76	Computer apparatus in PES	3.78 ± 1.01
Educational games	4.56 ± 0.67	Sports physiology	3.72 ± 1.02
Talent identification in sports	4.50 ± 0.84	Scientific research methods in PES	3.66 ± 1.07
Science in sports and training	4.50 ± 0.98	Game analysis in PES	3.66 ± 1.34
Child and sports	4.44 ± 0.72	Sports sociology	3.53 ± 1.02
Skill learning in PES	4.34 ± 0.83	Performance test in PES	3.41 ± 1.34
Introduction to PES	4.31 ± 1.03	Biomechanics in PES	3.34 ± 1.21
Motor development	4.31 ± 0.86	Sports and folk science	3.34 ± 1.21
Physical fitness	4.22 ± 0.79	Sports philosophy	3.28 ± 1.11
Nutrition in sports	4.19 ± 0.86	Sports history	3.25 ± 1.11
Sports for life	4.16 ± 0.77	Sports and industry	3.16 ± 1.25
Education in Turkish folk dance	4.06 ± 1.29	Sports and media	3.00 ± 1.27
Sports psychology	4.09 ± 0.82	Olympic	2.97 ± 1.36
Exercises and illness	4.00 ± 1.02	Seminar and project	2.97 ± 1.38
PES for handicapped	3.97 ± 1.26	Statistics	2.97 ± 1.33

X: Mean, SD: standard deviation.

physiology were considered important lessons that were rated between 3.00 and 4.50 (Table 2).

PETE faculty must be able to prepare future physical educators for roles and responsibilities that are fundamentally different from those of their predecessors (McKenzie and Kahan, 2004). "Highly qualified" adapted physical education teachers must possess comprehensive content knowledge in disability studies

(Kelly, 2006).

Ayers and Housner (2008) reported that field experiences are not limited exclusively to students teaching in PETE programs. O'Sullivan (1990) believed that observations and field experiences are very important for the K-12 PE experience. In our study, practical lessons in schools were described as important lessons that were rated between 3.00 and 4.50 (Table 2).

Table 3. Courses of pedagogical formation taken in faculty of education in universities.

Course of education (n=80)	X ± SD	Course of education (n=80)	X ± SD
Teaching practice in PES	4.75 ± 0.51	Teaching and Development	4.31 ± 0.80
Planning and evaluation in teaching	4.62 ± 0.61	Technology and Material Development in Teaching	4.19 ± 1.00
Introduction to education	4.53 ± 0.84	PES Management and Organization in School	4.09 ± 0.90
Management in class	4.50 ± 0.67	Education Psychology	4.09 ± 0.80
Guidance	4.47 ± 0.95	Sports Pedagogy	3.94 ± 1.20
Special teaching methods in PES	4.44 ± 0.72	Education in Preschool	3.94 ± 1.10
Practice in school	4.41 ± 0.98	Education Sociology	3.53 ± 1.00

X: Mean; SD: standard deviation.

However, Collins (1991) stated that although a solid theoretical foundation is important in any practical endeavor, it may be more "efficacious to think in terms of engaging thoughtfully with theory and then, putting ourselves into practice rather than putting theory into practice". Put simply, serious engagement with theoretical ideas provides the stimulus to be critically reflective teachers, which in turn reveals itself in actual teaching.

School implementation constitutes one of the most important dimensions of pre-service teacher training. This implementation is very effective in gaining professional knowledge and skills (Harmandar et al., 2000). Numerous practicum experiences are required to prepare qualified physical educators; however, the quality of the experience must be considered (Hickson et al., 2006).

On the other hand, other courses included in PE and in Table 2 should be reduced or eliminated from the PES curriculum. According to Acıkada (1992), most of the same low-rated courses in Table 1 were found unimportant to PES teachers, a result similar to that of our study (Acıkada, 1992).

Also, according to our study, PES teachers wanted to take more than 50% practical courses rather than theoretical courses in the school curriculum. Martinek (1976) agrees that when students not only participate in physical activity but also truly share in decision making, they exhibit a higher self-concept than those students who do not participate.

Conclusion

Conclusively, the present study showed that the highly-rated courses in Table 1 should be supported in the PES curriculum, or that the courses offered in PES should be similar to those in Table 1. These courses can help the teachers in their work. The PE curriculum at teacher education institutions should be as close as possible to the PE curriculum at schools to be functionally supportive of the students' future professional work (Prskalo et al.,

2007). PETE programs need to equip teachers with the requisite skills and knowledge, but also develop PES teachers who can understand the new generations of children and youths and the context of new times. Well-planned and continuous efforts are needed to secure the strongest support at all educational levels. Future works will require more comprehensive curriculum review and restructuring.

CONFLICT OF INTERESTS

The authors has not declared any conflict of interests.

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A hand is shown holding a stack of several books with light-colored covers. The background is dark, and the text is overlaid on a semi-transparent dark band.

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