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# Educational Research and Reviews

Table of Contents: Volume 10 Number 12 23 June, 2015

## ARTICLES

### Research Articles

- Examining occupational anxiety level of Mathematics teachers for some variables** 1578  
Cahit TAŞDEMİR
- Educational managers' opinions regarding the in-service training in Turkey: A case study of the Agri Province** 1586  
Ihsan Nuri DEMİREL
- Diaries as a reflective tool in pre-service language teacher education** 1593  
Şevki Kömür and Hazal Çepik
- Are the skills really integrated in coursebooks? A sample case- Yes You Can A1.2** 1599  
Doğan Demirci and Zekiye Müge Tavail
- The mediation effect of school satisfaction in the relationship between teacher support, positive affect and life satisfaction in adolescents** 1633  
Bülent Baki Telef, Gökmen Arslan, Abdullah Mert and Sezai Kalafat
- Developing strategic leadership for administrators: Private vocational college study** 1641  
Areeya Jumnongya, Chaiyuth Sirisuthi and Pacharawit Chansirisira
- The development of knowledge and awareness of environmental laws and participation in environmental conservation of probationers** 1646  
Somchai Wanlu, Adisak Singseewo and Paitool Suksringarm
- Curriculum development for enhancing the art aesthetic in art learning substance for grade 7 students: Pilot study** 1651  
Dheerayut Wisedsang, Chowwalit Chookhampaeng and Pitak Noiwangklang

## ARTICLES

### Research Articles

- Teacher behaviours observed by teacher candidates throughout their primary and secondary school years** 1662  
Semra Güven
- Factors affecting the Mathematics achievement of Turkish students in PISA 2012** 1670  
Şengül Uysal
- Development of an effective school-based financial management profile in Malaysia: The Delphi method application** 1679  
Norfariza Mohd Radzi, Muhammad Faizal A. Ghani and Saedah Siraj
- An investigation of ninth grade students' attitudes toward daily life chemistry** 1695  
Ismail KENAR, Ali Rıza SEKERCİ, Ali Rıza ERDEM, Gürkan GECGEL and Halil Ibrahim DEMİR
- Investigation of primary class teachers' conflict approaches by gender** 1702  
Ibrahim Habacı
- Problem solving skills of people doing sporty recreation activities in Karaman Province** 1713  
Sefa Şahan BİROL
- Curriculum development for enhancing grade nine students' systems thinking** 1722  
Preeyanan Hernthaisong, Somsong Sitti and Kanyarat Sonsupap
- Metasynthesis of in-service professional development research: Features associated with positive educator and student outcomes** 1731  
Carl J. Dunst, Mary Beth Bruder and Deborah W. Hamby

**ARTICLES**

**Research Articles**

- |  |             |
|--|-------------|
| <b>An analysis of articles about Turkish primary and secondary school curriculum changes between 2005-2013</b> | <b>1745</b> |
| Gönül Güneş  |             |
| <b>Developing competency of teachers in basic education schools</b>  | <b>1758</b> |
| Rerngrit Yuayai, Pacharawit Chansirisira and Kochaporn Numnaphol   |             |
| <b>Friendly and hostility perception of 8th grade students about countries</b>                                 | <b>1766</b> |
| Beytullah KAYA   |             |

*Full Length Research Paper*

## Examining occupational anxiety level of Mathematics teachers for some variables

Cahit TAŞDEMİR

Bitlis Eren University, Tatvan Vocational School, Bitlis, Turkey.

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The research aims to examine the occupational anxiety level of Mathematics teacher candidates according to some variables. The research sample included a total of 132 prospective teachers studying in Mathematics Teaching at Siirt University, Faculty of Education in the spring term of 2104-2015 academic year. The “Teacher Concern Checklist” adapted by Şaban et al. from Borich and the personal information form developed by the researcher were used. The unrelated sample t-test and one-way variance analysis technique were used to analyze the data. The research results showed that the overall anxiety level of prospective teachers was moderate, and the average score they achieved from three dimensions of the concern checklist (task-centered anxiety, student-centered anxiety and self-centered anxiety) did not significantly differ by variables including gender, school year and type of high school they graduated from.

**Key words:** Professional anxiety, anxiety, mathematics teacher candidate, education, teacher.

### INTRODUCTION

The only need of a society is a successful and innovative education system to have the knowledge and experience necessitated by the time, to reach the level of modern civilizations, to live the knowledge era and become a knowledge society. The most important element of this educational system is teachers. A teacher, who is in the center of the education system, is supposed to be an individual who has positive behavior in regard to his/her profession and who does not have a concern or negative attitudes about his/her profession besides being qualified, sociable and having the knowledge required by his/her profession, ability, sympathy and tendency to be reflective (Akgün and Özgür, 2014).

Anxiety is described as subjective feelings associated

with worries, nervousness, and tension (Spielberger, 1976, p.5). Anxiety is defined as a feeling that sometimes stimulates human in their daily life to courage towards creative and constructive behaviors, and sometimes hinders such behaviors and creates disturbance. According to learning-approach theories, anxiety is a feeling that is acquired through conditioning, and a type of impulse. It is the severity and duration, not the source, of the feeling and the importance of the hazard that determine if the anxiety is normal or pathological (Başarır, 1990). Anxiety is generally defined as an emotion that is caused by feelings adversely affecting an individual (Varol, 1990). According to Işık (1996), anxiety is a probability of a hazard resulting from inner and outer

E-mail: [ctasdemir@beu.edu.tr](mailto:ctasdemir@beu.edu.tr).

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world, or a feeling of an individual that is felt for any situation that is perceived and interpreted as hazardous. Another definition is that “anxiety” is unpleasant emotional and observable reactions such as sadness, perception and stress created by distressful conditions (Özgüven, 1999, 339).

Anxiety is a complex psychology term including many variables. Simply put, anxiety is the feeling of worries along with increased vigilance, increased sympathetic nervous system, and difficulty in concentrating (Kelly, 2002). Anxiety is described to include one or most of the excitements such as sadness, distress, fear, sense of failure, helplessness, not knowing the result and being judged and as an adaptive mood against hazards (Cüceloğlu, 2006).

In general, people express the anxiety with emotions including pessimism about future, failure, concern, despair and confusion. It is very normal to have ups and downs throughout our lives. These are only transient. From the perspective of sciences, anxiety appears to motivate an individual, though it is not over-anxiety. What is important is to find our deficiencies and a way to remedy them, and not to allow anxiety to grow too much to impair an individual (Develi, 2006, 20).

Fuller (1969) assembles the anxiety of teacher candidates about their task in three groups as the anxiety which is self-centered, task-centered and student-centered (Taşğın, 2006). The focus of self-centered anxiety is the teacher candidates themselves. Teacher candidates who have self-centered anxiety always worry about whether they can do this successfully or not and for this reason they are always under intense stress. When the task of teacher is taken into account, the anxiety of teacher candidates about their success in their task centres on these questions: ‘What is the profession of teaching for? How will I do the task every day? What will the head master of the school and my colleagues think about me when my classroom is noisy?’ The focus of task-centered anxiety consists of the candidates’ teaching task. Teacher candidates who have task-centered anxiety are anxious about being effective instructors; therefore, they start to search new teaching methods and materials that can be used in their teaching branch. When the task of teacher is taken into consideration, in terms of task-centered anxiety the candidates try to find answers to these questions: ‘How should education and teaching in different classes be? How can I follow and reach new materials, techniques and ideas for my teaching? Who can help me the best in order to be successful in my task?’ The focus of student-centered anxiety is the students. Teacher candidates who have student-centered anxiety are more student centered in their ideas about teaching. They start to wonder about and search for how they can cover each student’s

mental, emotional and requirements (Saban et al., 2004; cited in Çubukçu and Dönmez, 2011).

In our country, students take a variety of examinations from the primary school to university in order to be placed in an educational institution. Their concern about placement in any associate degree programs and undergraduate programs never ends, and concern about the completion of education and the future remains. In our day, prospective teachers mostly concern about whether they would be appointed. Final year undergraduate students experience one critic turning point after graduation as to taking a step into the business life or into being unemployed. Selection of a job, plans for assuming a role in the real life, experienced friendship, fear for not finding a job, and various responsibilities are some factors that result in anxiety in an individual (Tümerdem, 2007).

Improvements and changes in the education system as well as adverse incidents in the education system can lead to occurrence of occupational anxiety in prospective teachers. It is very important to be familiar with occupational anxiety of prospective teachers and perform studies in this respect for a good quality of education and educating qualified teachers. In this sense, developed countries have made progress through restructuring activities and research initiated to educate teachers, and a new perspective has been introduced to education of teachers. Studies performed under such perspective have attracted attention on the importance to conduct studies with prospective teachers as well as teachers (Çakmak, 1999).

In the literature studies performed to detect occupational anxiety of prospective teachers, there are a variety of students in this domain. A study by Bozdam (2008) investigated that the overall anxiety level was moderate, and occupational anxiety was not influenced by gender and place where they were raised. A study by Dursun and Karagün (2012) showed that students did not significantly differ in financial status, academic average, type of high school graduated from and gender for their socio-demographic characteristics, task-centered, student-centered and self-centered anxiety.

Research performed by Aslan (2009) identified that constant level of anxiety was not influenced by gender, age, major, type of school, seniority, duration of employment, level to follow publications, and graduation. Ünalı and Alaz (2008) investigated anxiety level of prospective teachers studying in geography teaching and found that the anxiety level of women was higher than that of men taking psychiatric samples in studies on the relationship between the anxiety and gender, and that no difference existed in genders between student groups. The findings obtained from the study by Çubukçu and Dönmez (2011) showed that prospective teachers

expressed their task-oriented concern was the highest and their self-oriented concern was minimum in anxiety sub-dimension.

The study performed by Varol (1990) identified that the anxiety level was influenced by variables including gender, success, friendship relations, program they want to be placed, parent's profession, parent's attitude and financial status. In the study conducted by Tekneci (2010), they suggested that state and continuous anxiety level of prospective teachers studying in teacher of mentally handicapped did not differ by classroom variable. A study performed by Yıldırım (2011) concluded that second-class prospective teachers had a higher level of occupational anxiety than that of forth-class prospective teachers.

In the review of research performed, there are many studies conducted to investigate anxiety level of prospective teachers in teaching profession by different variables. As demonstrated in such studies, it is highly important for prospective teachers not to have any concerns about their profession in order to achieve in teaching profession. However, only few studies were performed with prospective teachers receiving education in teaching Mathematics for primary schools. This makes further important to conduct a study on occupational anxiety of Mathematics teaching candidates. Therefore, this study was performed for the purpose of examining anxiety of students studying primary school Mathematics teaching by different variables.

### Objective of the research

The objective of this research was to examine anxiety level of prospective teachers studying in primary school mathematics teaching by variables including gender, type of high school graduated from and school year. For this purpose, the answers to these questions are searched:

1. Does anxiety of prospective teachers for teaching profession significantly differ by gender variable?
2. Does anxiety of prospective teachers for teaching profession significantly differ by class level?.
3. Does anxiety of prospective teachers for teaching profession significantly differ by the type of high school graduated from?

## METHODS

### Research model and research group

This is a descriptive research based on general screening to examine the occupational anxiety of students receiving education in teaching mathematics for primary schools for several variables. The screening model is appropriate for studies aiming to describe a past

or present case as it was or is (Karasar, 1999). The research sample included a total of 132 students of first, second, third and fourth year studying in Mathematics Teaching for Primary Schools at Siirt University, Faculty of Education in the spring term of 2104-2105 academic year. A number of demographics of these students are presented in Table 1.

In Table 1, of students, 64.4% (N=85) were females, and 35.6% (N=47) were males; 20.5% (N=25) were at first class, 32.6% (N=43) were second class, 29.5% (N=39) were third class and 17.4% (N=23) were fourth class students; 55% (N=73) were common high school graduates, 36.4% (N=48) were Anatolian high school graduates, and 8.3% (N=56) were Anatolian teacher high school graduates.

### Data collection tools

The research data were collected by the "Teacher Concern Checklist" adapted by Şaban et al. (2004) from Borich (1996) and the personal information form developed by the researcher. The information form included questions for gender of students, class level, and type of high school graduated from. Teacher Concern Checklist contains 45 articles and three sections as "self-centered anxiety" (SCA), "task- centered anxiety", (TCA) and "student-centered anxiety" (StCA) based on Five Point Likert scale. The students were instructed to check one of the following options "1= I do not get anxious", "2= I get anxious a little", "3= I get anxious partly", "4= I get anxious fairly" and "5= I get anxious very much" to indicate their concern for items on the checklist. The number of articles and the articles contained in each section are as follows: task-centered anxiety: 1, 3, 6, 7, 10, 11, 12, 6, 21, 25, 27, 31, 33, 40, 42; student- centered anxiety: 5, 15, 17, 19, 22, 23 29, 34, 36, 37, 38, 39, 41, 43, 45; self-centered anxiety ; 2, 4, 8, 9, 13, 14, 18, 20, 24, 26, 28, 30, 32, 35, 44 (Şaban et al., 2004, 200). Each section of the checklist contains 15 items. The lowest score to have from each section is 15 and the highest score to have is 75. The higher the prospective teacher obtains from each section, the higher the prospective teacher has concerns about occupational anxiety represented by that section (Dilmaç, 2010:49-65). Cronbach Alpha coefficient of internal consistence to determine reliability of checklist was calculated as .85 for task- centered anxiety, .91 for student- centered anxiety.91 and .92 for self-centered anxiety.

### Data analysis

SPSS17.0 packet program was used to statistically analyze data obtained for the research. Anxiety of students was analyzed for variables including "gender, class level, and type of high school graduated from". For data analysis, the unrelated sample t-test was used to compare two variables, and one-way variance analysis (ANOVA) was used to compare three or more variables. .05 was considered significant for statistical analysis.

## FINDINGS AND INTERPRETATION

This section presents findings in tables for occupational anxiety of mathematics teaching candidates. It was analyzed and interpreted in sub-sections based on research questions. Table 2 presents average scores of concern type of students for teaching profession. In Table

**Table 1.** Frequency and percentage distribution for demographics of students.

Variables	Gender/Class/Type of H. Sch.	N	%	Total	
				N	%
Gender	Female	85	64,4	132	100
	Male	47	35,6		
Class	1. Class	27	20,5	132	100
	2. Class	43	32,6		
	3. Class	39	29,5		
	4. Class	23	17,4		
Type of H. School Graduated	Common H. School	73	55,3	132	100
	Anatolian H. School	48	36,4		
	Anatolian Teacher H. School	11	8,3		

**Table 2.** Average scores of students for concern type on "Teacher Concern Checklist".

Concern type	N	$\bar{x}$	S	Min	Max
Task- centered anxiety (TCA)	132	37,393	10,051	15,00	75,00
Student-centered anxiety (StCA)	132	34,712	11,181	15,00	75,00
Self- centered anxiety (SCA)	132	33,848	11,618	15,00	75,00

2, average scores of prospective teachers for task-oriented concerns were ( $\bar{x}$ =37,393), average scores for student-oriented concerns were ( $\bar{x}$  = 34,712), and average scores for self-oriented concerns were ( $\bar{x}$  = 33,848).

Based on these findings, the highest concern of prospective teachers was task-oriented concerns. The lowest score of prospective teachers to get from teacher concern checklist was 15.00, and the highest score was 75.00.

#### Does anxiety of prospective teachers for teaching profession significantly differ by gender variable?

In Table 3 for total occupational anxiety of prospective teachers by gender variable, average scores of female students for occupational anxiety ( $\bar{x}$  = 109,941) were higher than the average scores of male students for occupational anxiety ( $\bar{x}$  =101.255); however this difference was not significant as indicated by the statistical analysis ( $p$ =.314,  $p$ >.05). Based on the results, gender variable appears not to have a significant influence on the occupational anxiety of students. In examination of subtypes of occupational anxiety by gender variable, the average scores of female students for task- centered anxiety ( $\bar{x}$  = 38.035) were higher than

those of male students ( $\bar{x}$ =36.234); however this difference was not statistically significant ( $p$ =.326;  $p$ >.05). In the average scores for student- centered anxiety, average scores of female students for concern ( $\bar{x}$  =34.893) were a little higher than those of male students ( $\bar{x}$ =34.612); however this difference was not significant ( $p$ =.890;  $p$ >.05). In average scores for self- centered anxiety, concern scores of female students ( $\bar{x}$  = 34.574) were higher than those of male students ( $\bar{x}$ =32.553); however this difference was not statistically significant ( $p$ =.351; $p$ >.05).

#### Does anxiety of prospective teachers for teaching profession significantly differ by class level?

In Table 4, total average scores of students for occupational anxiety were not statistically significant by class ( $p$ =.795; $p$ >.05). In subtypes of anxiety, scores for task- centered anxiety were ( $\bar{x}$  = 37.593) for the first class ( $\bar{x}$  = 37.465), for the second class ( $\bar{x}$  = 36.846), for the third class and ( $\bar{x}$  = 37,956) for the fourth class. Student- centered anxiety score was ( $\bar{x}$  = 37.444) for the first class, ( $\bar{x}$  = 34.348) for the second class, ( $\bar{x}$  = 32.846) for the third class, and ( $\bar{x}$  = 35.348) for the fourth class. Self-centered anxiety score was ( $\bar{x}$  = 32.407) for

**Table 3.** T-test results for occupational anxiety of prospective teachers according to gender variable.

<b>Anxiety type by gender</b>	<b>N</b>	$\bar{x}$	<b>S</b>	<b>t</b>	<b>p</b>
<b>TCA</b>					
Female	85	38,035	9,928	,986	,326
Male	47	36,234	10,274		
<b>StCA</b>					
Female	85	34,893	9,994	,138	,890
Male	47	34,612	11,842		
<b>SCA</b>					
Female	85	34,574	12,053	,936	,351
Male	47	32,553	10,796		
<b>Total</b>					
Female	85	109,941	30,855	1,012	,314
Male	47	101,255	31,032		

TCA: Task- centered anxiety; StCA: Student- centered anxiety; SCA: Self- centered anxiety.

**Table 4.** Arithmetic average and standard deviation for occupational anxiety of prospective teachers by class variable.

<b>Anxiety type class</b>	<b>N</b>	$\bar{x}$	<b>S</b>	<b>F</b>	<b>P</b>
<b>TCA</b>					
1.Class	27	37,593	10,860		
2.Class	43	37,465	10,233	,065	,978
3.Class	39	36,846	9,091		
4.Class	23	37,956	10,889		
<b>StCA</b>					
1.Class	27	37,444	11,856		
2.Class	43	34,348	12,322	,938	,424
3.Class	39	32,846	9,326		
4.Class	23	35,348	11,051		
<b>SCA</b>					
1.Class	27	32,407	13,920		
2.Class	43	33,348	8,648	,226	,878
3.Class	39	34,410	10,949		
4.Class	23	34,511	12,296		
<b>Total</b>					
1.Class	27	100,666	38,448		
2.Class	43	106,695	28,036	,342	,795
3.Class	39	103,589	27,035		
4.Class	23	107,837	31,148		

TCA: Task- centered anxiety; StCA: Student- centered anxiety; SCA: Self- centered anxiety.

**Table 5.** Arithmetic average and standard deviation for occupational anxiety of prospective teachers by high school graduated from.

Anxiety Type	Type of H. School	N	$\bar{x}$	S	F	p
TCA	Common H. School	73	37,561	9,972	,198	,820
	Anatolian H. School	48	38,818	10,361		
	Anatolian Teacher H.	11	36,812	10,274		
StCA	Common H. School	73	34,671	10,139	,207	,813
	Anatolian H. School	48	36,727	12,042		
	Anatolian Teacher H.	11	34,312	12,608		
SCA	Common H. School	73	33,849	10,628	1,022	,363
	Anatolian H. School	48	38,363	13,544		
	Anatolian Teacher H.	11	32,812	12,581		
Total	Common H. School	73	106,849	28,279	,353	,703
	Anatolian H. School	48	104,818	46,058		
	Anatolian Teaching H.	11	102,000	31,208		

TCA: Task- centered anxiety; StCA: Student- centered anxiety; SCA: Self- centered anxiety.

the first class, ( $\bar{x} = 33.348$ ) for the second class, ( $\bar{x} = 34.410$ ) for the third class, and ( $\bar{x} = 34.511$ ) for the fourth class. In significance level for class level variable and subtypes of occupational anxiety, the difference in average scores of task- centered anxiety ( $p=.978;p>.05$ ), student-centered anxiety ( $p=.424;p>.05$ ) and self-centered anxiety ( $p=.878;p>.05$ ) was not statistically significant.

#### Does anxiety of prospective teachers for teaching profession significantly differ by the type of high school they graduated from?

As presented in Table 5, total average scores of students for occupational anxiety did not significantly differ by the type of high school graduated from ( $p=.703;p>.05$ ). In subtypes of anxiety, task- centered anxiety scores were ( $\bar{x} = 37.561$ ) for common high school, ( $\bar{x} = 38.818$ ) for Anatolian high school and ( $\bar{x} = 36.812$ ) for Anatolian Teaching high school. Student- centered anxiety scores were ( $\bar{x} = 34.671$ ) for common high school, ( $\bar{x} = 36.727$ ) for Anatolian high school, and ( $\bar{x} = 34.312$ ) for Anatolian Teaching high school. Self- centered anxiety scores were ( $\bar{x} = 33.849$ ) for common high school, ( $\bar{x} = 38.363$ ) for Anatolian high school, and ( $\bar{x} = 32.812$ ) for Anatolian Teaching high school. In significance level according to the type of high school graduated from and subtypes of occupational anxiety, the difference in average scores for task- centered anxiety ( $p=.820, p>.05$ ), student- centered anxiety ( $p=.813, p>.05$ ) and self- centered anxiety ( $p=.363, p>.05$ ) was not statistically significant.

## RESULTS AND DISCUSSION

This section compares the findings from this study performed to identify occupational anxiety of prospective teachers receiving education in mathematics teaching for primary schools with findings from other studies.

Average scores of task- centered anxiety level of prospective teachers were 37.393, average scores of student- centered anxiety level were 34.712, and average scores of self-centered anxiety level were 33.848 (Table 2). Based on these findings, occupational anxiety level of prospective teachers was moderate, and task- centered anxiety was higher than other types of anxiety. This finding is consistent with the finding from the research by Şaban et al. (2004).

This research investigated whether average scores of prospective teachers for occupational anxiety significantly differed by gender variable and found that total of average scores of female students for occupational anxiety ( $\bar{x}= 109.941$ ) were higher than total of average scores of male students for occupational anxiety ( $\bar{x} =101.255$ ); however this difference was not statistically significant as shown by the analysis ( $p=.314,p>.05$ ). The anxiety scores for task- centered anxiety, student-centered anxiety scores and self- centered anxiety scores, which are sub-dimensions of teacher concern checklist, did not significantly differ by gender variable; however average occupational scores of female students were higher than those of men. This finding suggests that gender variable did not have a significant influence on the anxiety of students for teaching profession. This finding is also consistent with studies performed by Cooper and Robinson (1991), Saban et al. (2004), Taşğın (2006),

Tümerdem (2007), Ünalı and Alaz (2008), Akgün et al. (2007), Dilmaç (2010), and Dursun and Karagün (2012). But, results from a number of studies conflict with results of our research (Bozdam 2008; Temiz, 2011; Yıldırım, 2011; Atmaca, 2013). Because women and men go through different socialization processes and have different opportunities for experience, and because reaction of immediate environment to their job differentiates by gender, they see themselves inadequate in different fields (Kuzgun, 2003, s.54).

No statistically significant differences were found in occupational anxiety level of prospective teachers by class. Similarly, Tekneci (2010) found that state and continuous anxiety level of prospective teachers did not significantly differ by class. However, in evaluation of both total scores of anxiety and sub-dimensions of anxiety – task- centered anxiety and self- centered anxiety – occupational anxiety scores of fourth-class prospective teachers were higher than those of students of other class. A study performed by Şaban et al. (2004) on occupational anxiety of prospective teachers suggested that task- centered anxiety of prospective teachers in the fourth class was higher. This finding is partially consistent with our finding. In general, absence of significant differences in occupational anxiety scores of prospective teachers suggests that prospective teachers gain insight about duties and responsibilities for teaching profession as a result of knowledge, skill and experience they gain throughout their education, but they are concerned about whether they could achieve in teaching profession prior to appointment process (Taşğın, 2006; 679-686).

This research evaluated whether average scores of prospective teachers for occupational anxiety level statistically significantly differed by the type of high school graduated from; occupational anxiety level of prospective teachers did not significantly differ by the type of high school they graduated from, and the average scores for task- centered anxiety, student- centered anxiety and self- centered anxiety level did not significantly differ. Although there were no significant differences in occupational anxiety level of prospective teachers, based on average scores, task- centered anxiety, student- centered anxiety and self- centered anxiety level of Anatolian teaching high school graduates was lower than that of common high school and Anatolian high school graduates (Table 5). This might be because students who graduated from Anatolian Teaching High School chose a teaching high school at early age and complete their education in such schools, and knowledge, skill and positive attitude towards teaching occupation they gain throughout the period of education. In similar studies, Saracaloğlu et al. (2009), Dursun and Karagün (2012) identified no significant differences between the type of high school graduated from and the occupational anxiety

level. This result is similar to the results of our research. However, results of a number of studies are not similar to the results of our research (Özsarı, 2008; Dilmaç, 2010).

As a result, in evaluation of research findings, task- centered anxiety, student- centered anxiety and self- centered anxiety level of prospective teachers was moderate and did not significantly differ by gender, class level and type of high school graduated from. However, it is necessary for education institutions educating teachers to form their educational program to satisfy future expectation of students, and students who are prospective teachers of the future should have positive attitude towards teaching profession in order to perform their profession successfully and passionately, which could be possible experiencing no occupational anxiety. This would give positive results for the future of teaching profession.

### Conflict of Interests

The author has not declared any conflict of interests.

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*Full Length Research Paper*

# Educational managers' opinions regarding the in-service training in Turkey: A case study of the Agri Province

Ihsan Nuri DEMİREL

Faculty of Education, Department of Educational Sciences Educational Management Inspection, Planning and Economy Department. Ağrı İbrahim Çecen University, Turkey.

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In this study, research was carried out in order to find out whether the certificate system which requires attendants of in-service training is adequate; whether their achievements are sufficiently evaluated in the appointment and ranking processes; whether in-service training is accepted as both a right and a responsibility of the institutions; whether the units responsible for the coordination of in-service training on a national and local level in Turkey are sufficient, and whether human relations are deemed important in in-service training programs as part of views of the Directors of the Agri National Education Directorate, the Principals and Vice Principals of Primary-Secondary Schools in the context of Administration and Supervision. The directors administered a survey which contained information on in-service training in order to determine their level of knowledge on this training in terms of administration and supervision. The sample for the research is composed of 105 directors, 30 of these directors are principals, and the others are vice-principals, from the directors of Agri National Education. According to the findings of the research; it was seen that the directors answered the questions containing information on in-service training with variable rates.

**Key words:** In-service training, human relations, Turkish Educational System, Agri Province, Turkey.

## INTRODUCTION

The certificate system that is required for in-service training attendants must be functionalized and used in their appointment and ranking processes. It must be agreed upon that attending in-service training sessions is both a right and a responsibility. The units that are responsible for the coordination of in-service training must be developed. In-service training programs must be provided with themes that improve human relations. It is

necessary to state what rights achievers will gain at the end of the program, and to provide them with sufficient financial sources, in a reasonable time, in order to receive favorable results in in-service training activities (Küçükahmet, 1986).

Following developments and innovations related to public service and technological developments is of great interest to those who conduct their jobs in a professional

E-mail: [indemirel@yahoo.com](mailto:indemirel@yahoo.com).

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manner. Taking into consideration the fact that some knowledge and skills are gained within the service, and considering that in-service training is a sort of internship, it must be remembered that there might be some jobs which can be learnt after starting the service (Bilgin, 2004).

The fact that those who were previously promoted from teaching positions to director positions in the National Education directorates or central organization of the Ministry are afterwards returned to teaching positions is known to create away from the area and such compliance some problems. What should be done is to pay sufficient attention to in-service training by including qualities such as fund of knowledge, achievements and qualifications, as well as a certain professional time into objective criteria (Taymaz, 1981).

Directors need to be trained in in-service training programs continually due to the necessity to keep up with swiftly-developing technology that causes fundamental changes in almost all parts of social life (Erki, 1988).

There is a great need for in-service training in order to reach the previously set main goals, in terms of setting objectives for the institution, elucidating work requirements, setting the qualities that personnel must have, and propounding in-service training requirements (Karabaş, 1989).

In-service training is generally agreed upon to be a means of earning a sense of cooperation which is necessary for efficient group work, knowledge and skills pertaining to basic jobs of the organization, and developing the skill of adaptation to changing conditions (Kocabaş, 1993).

There is a strong correlation between in-service training and development. This sort of idea of education is the key to modernization. The effectiveness and the productivity of the training process explain the effectiveness of the efforts in development and improvement substantially (Erişen, 1997).

A qualified department of education, which actively takes part within institutions, is highly recommended as part of improving in-service training in order to insure personnel competency, satisfying the learners' desire for knowledge via developed teaching techniques, and producing people who are able to establish positive dialogues in interpersonal relations (Kantek, 1998; Koç, 2013).

For personnel to fulfill their responsibilities more effectively and productively, they need to be trained continually and, in return, to keep up with the changes occurring within or outside the organization. This objective can be achieved by resorting to in-service training activities (Ekşi, 2001).

People with pre-training, which is necessary for taking up any job, have to follow developments and changes in their field in order to pursue their careers and make

progress in their chosen career. This is enabled by in-service training activities (Oktaç, 2007).

It is within the scope of the responsibilities of universities to train teachers and directors of formal education institutions within service. Every member of staff in the education system shares their knowledge, experiences, and observations with each other in in-service training activities (Başaran, 1993).

The training that one goes through during the period of time one is in service in order to increase the quality of produced goods and services, to increase the efficiency of production, to decrease institutional loss and to enable the institution to renew itself is called in-service training (Sağlam, 2008).

It is in-service training activity that allows one to develop a sense of security in their career, to lift their spirits, to maximize their level of prosperity, to seize an opportunity to move upwards in the hierarchy, and to pursue their lives in an environment of communication with open pores, and bring functionality to the development in this process (Adem, 1981; Arslan, 2011).

Problems, which cannot be solved only with skills taught at schools, are encountered in all fields of occupation. It is usually impossible to apply a training program which requires employing profoundly expensive machines and devices in schools. These kinds of deficiencies in the formal education process can be compensated by in-service training (Kıncal, 2001).

However, in-service training activities, which are not well organized, have got some drawbacks. In-service training activities which are not based on the real needs of the organization and personnel, which are organized as a means of a trip or to show-off have got no benefits (Başaran, 1985).

## METHOD

The content of the survey forms used to gather data related to the views of the Agri National Education Directors on in-service training activities in terms of administration and supervision was developed in accordance with the aim of the research (Karasar, 2005). The survey includes 15 questions. At the beginning of the study, a pilot test was applied. After the pilot test application, 10 questions were eliminated. The survey forms were habilitated for the information process technique by conferring with the opinions of the personnel who were knowledgeable about the issue. According to the data gather from results of the trial, it was seen that some questions did not work. Inoperable questions were excluded from the survey form in order to enable validity which is the expediency degree of an assessment and evaluation instrument, and reliability which is the consistency criterion for an assessment and evaluation instrument; and then the content and arrangement of the survey form were given the final shape. Data gathered from survey forms filled by Agri National Education directors was assessed in accordance with the aim of the research, and a conclusion of the same attempted. Before drawing a conclusion, the data gathered from surveys was transformed into certain charts by the researcher. These charts

**Table 1.** Variance of the schools included in the sample according to their number.

School type	No	%
High Schools and Equivalent	14	36,84
Primary Schools	24	63,15
General Total	38	100

**Table 2.** The variance of the experimental subjects in the sample according to their duties.

Duty	F	%
Principal	30	28,57
Vice Principal	75	71,42
Total	105	100

served as a facilitating factor in drawing a conclusion. Survey takers were asked to mark degree of accuracy of sentences related to views of Agri National Education Directors on in-service training activities in terms of administration and supervision as "Never", "Partially", "Quite" and "Exactly". These degrees were graded, respectively, 1, 2, 3 and 4. Thus, degrees of accuracy were converted into percentages.

### Population and sample

The subjects of the research consisted of school directors who worked in the academic year of 2008-2009 in schools affiliated with the Agri National Education Directorate. The Agri National Education Directorate's list of institutions was taken as a basis for setting the population. It is possible to pronounce the homology of the sample with the population as reaching the vast majority of directors as fundamental. The research was carried out on two experimental groups. One of them consisted of principals and the other of vice-principals from the directors of the Agri National Education Directorate. The aim was to include all the schools and directors of the National Education Directorate in Agri into the sample, and this was achieved substantially. Moreover, the fractions of numbers were not recorded on the charts while numbering the percentages of the research. Only two numbers after the decimal point of all the percentages were recorded on the charts. The reason why the rate of a hundred per cent (100%) was not reached is the lack of fractional numbers.

Just as the schools above included in the sample, the National Education Directorate directors were also included in the sample. The National Education Directorate was not recorded as it is not a school. The subjects to whom the surveys would be given in the schools on which the research was carried out were chosen as follows: The survey was given to almost all of the directors of Agri National Education Directorate and the schools in Agri, which were the part of the sample. All experimental subjects were administered the same survey.

The number of the directors to whom the survey was administered was 105. 30 of this number were principals and 75 were vice-principals (Tables 1 and 2).

### Data gathering

All of the 38 institutions answered the survey. None of the surveys were invalid. The survey was administered to almost all the directors working in schools in Agri. However, although there were no vice-principals who refused to answer the survey, some principals did not want to answer the survey. The survey forms were distributed to the directors by the researcher in person within the framework of the permission taken from Agri Governorate, and with the knowledge and permission of the National Education Directorate, and the directors were asked to fill the survey forms in due form and hand in to the researcher.

### Problem

The research was conducted in order to find out on what level the views of Agri National Education Directors on In-Service Training in Administrative and Supervisory terms are.

### Sub-problem

What level are the views of the Director of the National Education, and the principals of primary and secondary schools, out of the directors of Agri National Education Directors, on in-service training activities in administrative and supervisory terms?

### Premises

- 1- Pre-testing for developing the surveys is sufficient.
- 2- Expert opinions resorted for developing the surveys are sufficient.
- 3- Views of Agri National Education Directors which were consulted for the research reflect the reality.
- 4- Chosen research method is compatible with the aim of the research.
- 5- The sample's degree of representing the population is favorable.
- 6- The survey and the questions in the survey which were employed to gather data are valid and reliable.
- 7- It is assumed that the data provided is valid and reliable.

### Restrictions

- 1- This research was restricted to in-service training in administrative and supervisory terms and views of the Agri National Education Directors.
- 2- This research was restricted to the views of the Director of Agri National Education, deputy directors of Agri National Education and, the principals and vice-principals of high schools, high school-equivalents, and primary schools, and affiliated with the National Education Directorate in the Centrum of Agri.
- 3- This research was restricted to accessible resources and surveys which were used as means for data gathering.

### FINDINGS

In this section, the views of the Agri National Education directors on in-service training in administrative and supervisory terms have been given with the help of charts. The directors were asked to mark the degree of

**Table 3.** The certificate system required for in-service training (IST) attendants is sufficient.

Duty	Degree of accuracy				GENERAL TOTAL	
	EXACTLY (4)	QUITE (3)	PARTLY (2)	NEVER (1)		
Primary Schools	24	63,15	11	9	1	30
			36,66	30	3,33	28,57
General Total	38	100	15	34	14	75
			20	45,33	18,66	71,42
TOTAL	F	21	26	43	15	105
						100

**Table 4.** The achievements of those who attend IST activities are sufficiently evaluated in appointment and rating processes.

Duty	Degree of accuracy				GENERAL TOTAL	
	EXACTLY (4)	QUITE (3)	PARTLY (2)	NEVER (1)		
PRINCIPAL	F	9	4	8	9	30
	%	30	13,33	26,66	30	28,57
VICE- PRINCIPAL	F	11	15	27	22	75
	%	14,66	20	36	29,33	71,42
TOTAL	F	20	19	35	31	105
						100

accuracy of the sentences related to views on in-service training activities in terms of administration and supervision as "Never", "Partly", "Quite" and "Exactly". As previously stated above, these degrees were graded respectively, 1, 2, 3 and 4. Thus, the degrees of accuracy were converted into percentages. The views of the directors on in-service training in administrative and supervisory terms were shown as charts. The choices of "exactly" and "quite" were regarded as "favorable" choices, the accrual degrees of which are high.

As seen in Table 3, there were 9 of the principals who chose "exactly", 9 of them who chose "partly", and 1 of them who chose "never". 12 of the vice-principals chose "exactly", 15 of them chose "quite", 34 of them chose "partly", and 14 of them chose "never". The expectations of 66% of the principals and 36% of vice-principals on this issue were met "favorably".

As seen in Table 4, there were 9 of the principals who chose "exactly", 4 of them chose "quite", 8 of them chose "partly", and 9 of them chose "never". 11 of the vice-

principals chose "exactly", 15 of them chose "quite", 27 of them chose "partly", and 22 of them chose "never". The expectations of 43% of principals and 34% of vice-principals on this issue were met "favorably."

As seen in Table 5, there were 6 of principals who chose "exactly", 4 of them who chose "quite", 13 of them who chose "partly", and 7 of them who chose "never". 15 of the vice-principals chose "exactly", 20 of them chose "quite", 27 of them chose "partly", and 13 of them chose "never". The expectations of 33% of the principals and 46% of the vice-principals on this issue were met "favorably."

As seen in Table 6, there were 2 of the principals who chose "exactly", 6 of them chose "quite", 13 of them chose "partly" and 9 of them chose "never". 3 of vice-principals chose "exactly", 13 of them chose "quite", 42 of them chose "partly" and 17 of them chose "never". Expectations of 26% of principals and 21% of vice-principals on this issue were met "favorably."

As seen in Table 7, there were 7 principals who chose

**Table 5.** IST is considered to be both a right and a responsibility in the institutions.

Duty		Degree of accuracy				GENERAL TOTAL
		EXACTLY	QUITE	PARTLY	NEVER	
		(4)	(3)	(2)	(1)	
PRINCIPAL	F	6	4	13	7	30
	%	20	13,33	43,33	23,33	28,57
VICE- PRINCIPAL	F	15	20	27	13	75
	%	20	26,66	36	17,33	71,42
TOTAL	F	21	24	40	20	105
						100

**Table 6.** The units responsible for the coordination of IST nationally and locally in Turkey are sufficient.

Duty		Degree of accuracy				GENERAL TOTAL
		EXACTLY	QUITE	PARTLY	NEVER	
		(4)	(3)	(2)	(1)	
PRINCIPAL	F	2	6	13	9	30
	%	6,66	20	43,33	30	28,57
VICE- PRINCIPAL	F	3	13	42	17	75
	%	4	17,33	56	22,66	71,42
TOTAL	F	5	19	55	26	105
						100

**Table 7.** Human relations are paid sufficient attention to in IST programs.

Duty		Degree of accuracy				GENERAL TOTAL
		EXACTLY	QUITE	PARTLY	NEVER	
		(4)	(3)	(2)	(1)	
PRINCIPAL	F	7	11	10	2	30
	%	23,33	36,66	33,33	6,66	28,57
VICE- PRINCIPAL	F	8	24	28	15	75
	%	10,66	32	37,33	20	71,42
TOTAL	F	15	35	38	17	105
						100

“exactly”, 11 of them who chose “quite”, 10 of them who chose “partly” and 2 of them who chose “never”. 8 of the vice-principals chose “exactly”, 24 of them chose “quite”, 28 of them chose “partly”, and 15 of them chose “never”.

The expectations of 59% of the principals and 42% of the vice-principals on this issue were met “favorably.”

1. Attitude of 66% of the principals and 36% of the vice-

principals to the statement that the “certificate system required for In-Service Training (IST) attendants is sufficient” was favorable. Although the majority of the principals stated that the certificate system required for in-service training attendants is sufficient, it is remarkable that the vice-principals disagreed with this to a higher degree, and there was a significant dissensus between the directors.

2. Attitude of 43% of principals and 34% of vice-principals to the statement that “achievements of IST attendants were not sufficiently evaluated in the appointment and rating processes” was favorable. It is impossible to disagree with the consensus of the principals and vice-principals on this issue. In fact, it is impossible to claim that the achievements of those who attend in-service training activities are evaluated sufficiently in the in processes of appointment and rating.

3. The attitude of 33% of the principals and 46% of the vice-principals to the statement that “IST is not considered both a right and a responsibility in institutions” was favorable. The directors have a consensus on the point of stating that in-service training is considered both a right and a responsibility in institutions.

4. The attitude of 26% of the principals and 21% of the vice-principals to the statement that “units should provide coordination of IST in Turkey on a national and local level” was favorable. It is obvious that the directors believe that the units that are responsible for the coordination of IST in Turkey on a national and local level are insufficient. It is impossible to disagree.

5. The attitude of 59% of the principals and 42% of the vice-principals to the statement that “IST programs pay sufficient attention to human relations” was favorable. The principals state that in-service training programs do not pay sufficient attention to human relations. However, the vice-principals disagree with their superiors on this issue.

## SUGGESTIONS

1- If the statement “The certificate system required for attendants of IST is sufficient” is considered to be too utopian, it should be explained to our directors why it is necessary to move constantly until it gets to this point.

2- The statement “Achievements of IST attendants are evaluated sufficiently in the appointment and rating processes” should certainly be given a meaningful insight; because those who attend in-service training activities are generally adults. One point that adults care about, in a training program they go through, is its urgent

usability in daily life. Adults have no patience when thinking about the future. It may not be a pleasant way to put it, but they may not have enough time to wait for a better future either, in terms of life span. Therefore, our directors should be told that it is certainly necessary in order to transform achievements of in-service training attendants into their advancement.

3- In contrast to the statement “IST is not considered both a right and responsibility in institutions”, the fact that it is a necessity should be explained to our directors.

4- Our directors should be given through courses the idea that the statement “Units that are responsible for the coordination of IST in Turkey nationally and locally are sufficient” should be set as a goal.

5- The statement “IST programs pay sufficient attention to human relations” constitutes the spine of in-service training. It should be explained to our directors that an in-service training activity isolated from etiquette and deprived of human relations cannot be meaningful.

6- Study sample is an important indicator for similar regions. Thus, it can be applied to more detailed studies in the different provinces.

## Conflict of Interests

The author has not declared any conflict of interests.

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*Full Length Research Paper*

## Diaries as a reflective tool in pre-service language teacher education

Şevki Kömür\* and Hazal Çepik

Muğla Sıtkı Koçman University, Faculty of Education, ELT Department, Kötekli, Muğla Turkey.

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**This study presents and analyzes the positive and negative reflections of ten pre-service English teachers who kept diaries on their own learning and teaching processes and daily lives. The participants were students in an English Language Teacher Education Program who took an on-campus methodology course and voluntarily agreed to keep diaries. These student teachers were asked to write for one month, outside of class contact hours, about their own learning and teaching experiences. The diaries were analyzed to explore the pre-service English teachers' language learning and teaching processes, daily routines and turning points regarding their future profession. Results showed that diaries might provide an effective tool to gain insight into the pre-service English teachers' learning and teaching processes both in and outside of the classroom and to understand in more depth their daily routines as student teachers.**

**Key words:** Pre-service teachers, diary, language teacher education, reflective thinking, Turkey.

### INTRODUCTION

We are living in a world that often requires agility by educators to rethink and shift their problem-solving strategies in teacher education. For this reason teacher candidates should be encouraged to practice reflective thinking as part of their professional development (Zeichner and Liston, 1987; Griffiths, 2000; Ward and McCotter, 2004; Yeşilbursa, 2011). Reflective practice in teacher education has gained importance recently as an alternative to two teacher learning models: the craft and applied science models (Ur, 1991). Considering all models and approaches in teacher education, educators have started exploring meaningful options for helping pre-service teachers to reflect on their learning and teaching experiences (Shoffner, 2008). Reflective practice involves

linking a current experience to something previously learned. In so doing, individuals can also see themselves, increase their awareness and improve the effectiveness of their learning and teaching. Reflection can be done via journals, logs, portfolios, and diaries, among other formats. In fact, researchers have reported the benefits of using different forms of reflective writing in teacher education (Freese, 2006).

The concept of reflective practice is commonly used in teacher education. When looking at definitions of reflection, we see a focus on its varied dimensions, as new trends and different studies affect perspective. Dewey (1933) defined reflection as "action based on the active, persistent and careful consideration of any belief

\*Corresponding author. E-mail: coal@mu.edu.tr.

or supposed form of knowledge in the light of the grounds that support it" (p. 9). Schön (1983) described it as an "artistic, intuitive process" that some practitioners use (p. 49). Similarly, McMillan and Weyers (2013) see reflection as the process whereby an individual evaluates an event or experience to arrive at a deeper understanding of the incident(s) and surrounding issues. According to Marcos et al. (2013), deliberate reflection by student teachers is a way to prepare, analyze and evolve their practice. For that reason, deliberate reflection has gained an important place in teacher education.

Reflective practices have also become a common practice in language teacher education through the use of diaries and discussion of daily classroom achievements and failures (Akbari, 2007). This development is most likely the result of the post-method discussion in language teaching (Prabhu, 1990; Kumaravadivelu, 1994). Akbari (2007) explained that:

in the method era, teachers were required to implement the dictates of language teaching methods without having much influence on the way methods were formulated in academic circles. The relationship between theoreticians and practitioners was (and to some extent still is) of a top down nature in which teachers were assigned little critical voice (p. 193).

Of the aforementioned reflection forms, diaries have acquired a distinct place in language learning and teacher education as they may contain potentially useful data for teacher education. McDonough (1994) pointed out that "diary-writing in an educational context has become a popular technique with several different types of application. It has now been used widely in both language teaching and in teacher training" (p.57). Moreover, Bailey (1990, p. 215) defined a diary study as "a first person account of a language learning or teaching experience, documented through regular, candid entries in personal diaries and then analyzed for recurring patterns or salient events". According to Bailey (1990), diary studies have been used to document three main areas: 1) language learning experiences, 2) student teachers' reactions to academic courses, and 3) language teaching experiences.

When studies related to reflective writing are considered in language teaching and learning, their importance and benefits come to the fore. For this reason, diary studies have been the focus of language researchers for some time. Woodfield and Lazarus (1998, p. 315) conducted a study with a group of Malaysian teachers in a short language-learning course. In this study, teachers reflected inwards about their own language learning processes and on themselves as teachers; and outwards about the learning processes of their students and on the teaching processes of the course in relation to themselves as adult

students.

Lowe (1987, p. 89) presented an experiment in which a group of teachers reversed roles and became learners of a foreign language while keeping diaries. On the other hand, Jarvis (1992) used learner diaries in order to understand how the teachers perceive the role of the diaries especially in relation to possible conflicting demands of reflecting on learning and presenting themselves in what they write. Numrich's (1996, p. 131) study presents the results of a secondary analysis of 26 diary studies by novice ESL teachers. In this study, each participant was asked to write a personal language learning history. The obtained data were examined to identify common themes. The general themes that emerged from the analysis of the diaries were novice teachers' early preoccupations with their teaching behaviour, transfer and rejection of teaching skills used in the novice teachers' own L2 learning, unexpected discoveries about effective teaching, and continued teaching frustrations.

Several researchers have highlighted the benefits of keeping a diary for student teachers' learning and teaching practices. Yeşilbursa (2013) pointed out in her study that transcription of student teachers' participation in a lesson raises their awareness of their classroom language. She also indicated that reflecting through writing could help both pre-service and in-service teachers to think more productively on their practice. Within the framework of a foreign language (Japanese) teacher education course, Geyer's (2008) study compared graduate teaching assistants' observations of their own classroom performance through two distinct windows: an entire classroom and a targeted teacher-fronted led activity.

On the other hand, Medina (2013) explored the diary insights of a foreign-language reading teachers and found that classroom diaries could be objective contrary to the argument that classroom diaries are subjective. Lee's (2007) study explored how dialogue journals and response journals could be used to encourage reflection among pre-service teachers. In terms of application, Lally (2000) argued that a major concern within the language teaching profession is the need to narrow the gap between research and teaching, and she supported the idea that language teaching and learning diaries could be an important mechanism in altering the traditional hierarchical flow of information from the researcher to the teacher. With this study Lally presented and compared findings from both the teaching and learning diaries of French conversation courses. In so doing, she assembled and evaluated the perspectives of teacher, student and researcher.

Chan (2011, p. 45) conducted a study that investigated learners' autonomy and out-of class English language learning of proficient tertiary students in Hong Kong. The

findings of this study presented some implications for English language teachers and students to make use of out-of class opportunities and foster learners' autonomy.

Our aim in this study is continue the exploration of the use of dairies and reveal pre-service English teachers' language learning and teaching experiences, daily routines and turning points in their lives and thoughts regarding their future profession in an English language teacher education program at a state university in Turkey.

### Research questions

The following questions were examined in this study:

- 1) What are the negative and positive reflections of preservice English teachers regarding their learning and teaching experiences?
- 2) What are the daily life routines and experiences of preservice English teachers?
- 3) What are their attitudes of preservice teachers towards keeping a diary in English outside the class-contact hours?

### METHOD

The research approach in this study was exploratory in nature, qualitative in terms of the type of data used, and interpretive in its analysis (Bailey and Ochsner, 1983 in Woodfield and Lazarus, 1998, p. 317). As Dörnyei (2007, p. 38) pointed out, "qualitative research is concerned with subjective opinions, experiences and feelings of individuals and thus the explicit goal of research is to explore the participants' point of view of the situation being studied."

### Participants

The participants comprised ten third-year students of an English language teaching education program at Muğla Sıtkı Koçman University, Muğla in Turkey who voluntarily agreed to keep dairies for one month. Their ages ranged from 21 to 23. All of them were non-native speakers of English. As they were placed in this program based on the foreign language component of a university entrance examination, their English language proficiency was considered similar. Their real names were not used in order to protect their identity. Instead, numbers were used to identify the findings from Student 1 (ST1) to Student 10 (ST10).

### Procedure

The course in which the present study was conducted was the Teaching Language Skills II, which is given as the second part of a two-semester long methodology course in the third year of the English language teacher education program. By the end of the course, pre-service teachers were to learn the techniques and stages of teaching grammar, pronunciation, listening, speaking, reading and writing. In the present study, the researchers asked the students to keep dairies outside of contact hours for the course on

the subject of language learning and teaching. As the researcher was also the course instructor, one aim of the study was to explore what English language teacher candidates would normally do in order to keep their language ability at a proficient level and how they would stay up-to-date with recent developments in ELT in addition to course requirements.

### Data analysis

In this case study, data were collected from the entries of ten student teachers' dairies during four weeks. The contents of the dairies were evaluated by two researchers, who were English language teaching experts. The interrater reliability was 0.90. The purpose of this analysis is to reveal what student teachers wrote according to three main themes: 1) positive and negative teaching and learning experiences, 2) daily life routines and experiences and 3) their attitudes towards keeping a diary as a part of this methodology course.

### FINDINGS AND DISCUSSION

Three main themes were determined to better organize students' reflections. Some excerpts from the dairies are given as follows:

#### *Negative reflections on teaching and learning behaviours and experiences*

ST1: "All of my friends in the class pretended to understand while I was doing presentation. I know that in real classroom, there will be a lot of problems. For example, I prepared a puzzle activity or rhythmical irregular verbs activity by keeping in mind that they had learnt required verbs very well. But I know that it would be difficult for the students who had just learn tense to make sentences. I can remember easily now how I got disappointed on my first day while doing teaching practice. This is because in universities, we are just learning how to teach grammar inductively. We have been told how to contextualize language, and how to make use of context. But on my first day our lessons in the university did not work."

ST6: "There were especially pronunciation problems in the classroom today. Although it didn't last long, it made me uneasy. I tried to correct them by repeating. I think that I am afraid of making mistakes in front of the class. I wish I had better pronunciation" (Student after giving a presentation in the classroom).

ST3: "If I was the teacher of this class, I would correct my students' pronunciation errors but the teacher ignored them. Students are so active that the teacher can't keep up with them. A teacher should orient himself to his class. I think that correcting one student's errors helps student

to develop" (from one of the student teachers' school experience).

ST5: "I tried to memorize the necessary information for the exam. In fact memorizing the sentences for the exam is not good way of learning, but sometimes I have to do it"

ST1: "Today I had a Michigan test. I am bad at grammar. I did not know most of the words in the test. I realized that I forgot some grammar structures. I have to study them again."

ST2: "I will be a teacher in a year but I must attend a course in order to pass a centralized exam to become an English teacher. This idea is so stupid. I will graduate from this department but it doesn't mean I am qualified to be an English teacher. I don't understand this dilemma."

ST3: I think that I do not like reading so much. Today I was at home in the morning and wanted to do something for my own studies. I read an article on story-telling. I enjoyed it but I exaggerated reading for two hours without any pauses.

ST7: "I am so busy with high-level articles that I don't care about basic rules. I know that the problem isn't lack of knowledge but lack of practice. Sometimes I forget basic rules and words. I need more practice especially in speaking."

### ***Positive reflections on teaching and learning experiences in the classroom setting***

ST1: "There was a conference in our university, for the first time. It was for language teachers. I was looking forward to participating in it. There were a lot of teachers, professors from ELT. I participated in some presentations. I enjoyed them very much and I get involved in some activities done during the presentations. I learned a lot. Today I watched a movie. It was about the daily lives of a teacher. The classroom was different from the classrooms in our local context. It was very colourful, full of teaching materials. I was deeply impressed by the teacher's affectionate behaviour.

ST10: "Today is the first day of my school experience. I feel as if I were a real teacher. It is a different experience to have an actual classroom atmosphere. I feel that I will be a very enthusiastic teacher who always remembers her school years."

ST4: "It is necessary that one should have a positive mood to words in that language to be able to study and

understand it. Unless one takes a positive attitude, learning turns out to be torture. I like to concern myself with English so it is a very enjoyable thing for me to study" (a student teacher writes while studying). Today I read the news in English on the net. I will read every day.

ST5: "The teacher is at the core of the education for me. We see them as a role model, and we internalize their behaviors. Thanks to my instructor, I am now more conscious about how to be a good teacher. He is very self-sacrificing to us."

ST2: "As we all know students' attention span is limited. Today the teacher ignored this fact and the course was boring. I saw that the most crucial thing is to catch students' attention so I will do it in my own classes when I become a teacher. I will never stick to the dull textbooks."

ST9: "Motivation is important. A teacher should motivate his students. I also believe that students' feelings are important. I will behave according to this fact. Today I saw that one of the students felt uneasy while answering a question and the teacher encouraged him to give an answer. This behavior impressed me and I decided to behave in this way. "

### *Reflections on daily-life routines:*

ST4: "Everybody is going somewhere. But me, I am in my room and I have to complete my homework. I can leave all my homework now and go out but I can't enjoy myself because I am thinking of my homework. This is called 'RESPONSIBILITY'."

ST5: "I am studying, studying and studying a lot but I don't feel ready and I don't know why? I feel as if I will be unsuccessful because I am studying only when I know I have to pass my exam."

ST1: "Today I am very happy because I used my time effectively. I read an English novel as well as studying a lesson. I feel unhappy when I cannot do something related with English in a day. I will be a teacher and I have to develop myself. "

ST2: "... I read articles and write summaries and what I understand. I also read three chapters from "Frankenstein."

### ***Attitudes towards keeping a diary in English and reflections on it***

ST1: "Writing in English is a totally different experience.

It has two goals for me: developing my writing skills in English while sharing my emotions. I will be an English teacher so it helps me to use the language fluently.”

ST2: “It is a magical thing. I will share my ideas in English. I was always dreaming of keeping a diary in English. I will continue to keep it from now on. I tried it once for a short period. Thanks to this study, I will achieve my dream.”

ST3: “I feel as if I am talking to my friend while writing in my diary notebook. I feel relaxed because I am not afraid of making a mistake, as keeping a diary is not a course. I know that the teacher will not score us or that we will not have to enter an exam in the end. This thought provides me with a sense of relief. This notebook is like my special area.”

ST7: Even now I am not writing on my notebook but I am speaking with my friend, a diary friend. So you are my second friend from now on.

When the reflections obtained from the student teachers' diaries are evaluated, it is seen that this study provided opportunities for them to engage in reflective thinking. It also provided opportunities for them to apply their own experiences, values and beliefs to evaluate what they have learned. Keeping a diary provided a summative document outlining students' achievements and allowed them the freedom to discuss their views and ideas and obtain feedback from their teaching and learning processes. It was also seen in this study that some students preferred memorization while preparing for the exams, although they did not support this way of learning.

The experiences reflected by the student teachers showed a pattern of insecurity regarding classroom management. They think that real classrooms pose some problems to them such as fear of making mistakes, inconsistency between theory and practice. So they highlighted a need for more practice in the methodology courses at the faculty. They also realized that using varied materials in the classroom encouraged students to participate in learning processes more actively

Several studies have noted the value of diaries and diary studies. Baily (1991) emphasized the value of diary studies as a source of vital information and insight regarding affective factors, language learning strategies, and learners' own perceptions of language learning. Analyzing diaries can provide teacher educators at the faculty with information about their students, allowing them to give feedback in a non-threatening environment. With the help of diaries, teacher educators can collect both longitudinal and temporal information.

Such diaries present them with the opportunity to see students' negative and positive reflections clearly, and

the results subsequently can be used to help develop those student teachers better. As Chant et al. (2004) stated, diaries require critical thought, self-direction and problem solving, lending credence to pedagogy in which students are encouraged to keep a diary in English. This practice also provides a chance for teachers to observe their students outside of class contact hours. According to Bailey (1991), this approach offers advantages for teachers, students, and researchers. For teachers, dairies offer the possibility of re-examining the language learning process; for learners, dairies offer safety valves for frustration and promote awareness in language-learning processes and pitfalls; and for researchers, dairies offer the ability to add to the knowledge base and also reveal new issues and factors that must be considered

## Conclusion

It was seen in this study that student teachers felt they could share their feelings and thoughts comfortably and freely. The diaries also provided insights into their daily life experiences, showing that they often had similar daily routines including doing homework, studying for exams, reading novels and spending spare time with their friends.

They also shared common concerns with their language learning. Because of their fear of mispronunciation in English, they often avoided speaking English in the classroom. Although they were aware of their weaknesses, they had not found pathways to professional development. From the findings of the present study it can be suggested that keeping diaries helped the student teachers to know their weakness and strengths in their teaching profession. Another salient point from the diaries is that almost all of the students were in a panic because of the centralized employment examination. Clearly, this exam affected them negatively; some complained that they had forgotten even basic rules and simple structures due to exam anxiety.

The student teachers all found their first experience of conducting lessons in an actual school classroom to be exciting and rewarding. From the diaries, the conclusion can be made that all the participants like learning and teaching English. They believe that a teacher plays a crucial role in enhancing learning in the language classroom. They also pointed out that they had learned lessons from both their negative and positive teaching and learning experiences, making reflections on their own needs for professional development. They commented on the path to becoming a teacher and also highlighted the importance of using visual aids and real-life activities in the classroom in order to increase students' participation in language-learning activities.

One thing was made clear from the analysis of the

student teacher diaries in the present study: Student teachers feel that they are overloaded with work and have to spend their spare time tending to school assignments. Almost all of them study systematically. They feel anxious during exam periods, and they openly reflect these feelings in their diaries. Overloaded by preparing assignments and classroom presentations, they claim that they cannot devote time to developing their English. They are student teachers from an English language-teaching program, but they can only find time to meet their faculty course requirements. This suggests that faculty could use alternative assessment models to reduce exam anxiety.

### Suggestions

As this study was carried out with ten participants, further studies with a larger number of participants allocating longer periods of time for keeping diaries are needed. Support from other sources of data such as student teachers' learning styles and strategies, conducting interviews and keeping diaries and journals for longer periods would also be useful in understanding the complex nature of student teachers' learning and teaching processes. Such diary studies can be integrated into additional courses to more closely observe professional development of student teachers.

### Conflict of Interests

The authors have not declared any conflict of interests.

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Full Length Research Paper

## Are the skills really integrated in coursebooks? A sample case- *Yes You Can A1.2*

Doğan Demirci\* and Zekiye Müge Tavil

English Language Teaching Department, Gazi University, Ankara, Turkey.

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This study aims to investigate whether there is any one of the skills that is developed more than the other skills after using the coursebook *Yes You Can A1.2* published by Ministry of National Education (MONE). Differing from the previous studies on integrated skills, this study tries to find out whether there is integrated skill bias in the coursebooks although they are prepared with the claim that they are integrating the four skills and aiming to develop all of the four skills equally. To fulfill this aim, a pre- and post-test, aiming to see whether there is change in students' proficiency in four skills after using the coursebook; a student questionnaire and a teacher questionnaire, aiming to determine their perceptions on the efficacy of the coursebook in terms of four skills, were developed and administered to 9<sup>th</sup> grade students. Besides, a focus group interview was conducted both with the students and the teachers to triangulate the findings. The findings indicated that students are content with the coursebook while teachers are not in terms of its efficacy in bettering students' four skills. In addition, the results revealed that *Yes You Can A1.2* is reading dominant or reading biased in terms of teaching four skills.

**Key words:** Four skills, integrated skill bias, *Yes You Can A1.2*.

### INTRODUCTION

Learning English in this globalized world is of great importance because of a variety of reasons including educational necessities, economical developments affecting all the countries, and sociological changes happening via easy transportation and cultural exchanges. All of these necessitate knowing English as it is the lingua franca language. As Çelik and Kasapoğlu (2014: 3) state, English takes greater attention than any other languages owing to being the language of communication. One of the mostly used materials in teaching English are coursebooks. And using coursebooks is not a brand new

idea because coursebooks are most widely used materials for educational needs and as a source of information throughout the history. Therefore, it is crucial for teachers or coursebook designers to assess its usefulness. To state it differently, evaluation is the key to select an appropriate coursebook.

In Turkey, coursebooks are prepared by freelance writers and delivered to schools by MONE, so MONE is the main addressee and arbiter in designing and renewing. The innovation in the coursebooks published in 2012-2013 by MONE is claimed to be designed with

\*Corresponding author. E-mail: [dogandemirci@live.com](mailto:dogandemirci@live.com), [mugetavil@gmail.com](mailto:mugetavil@gmail.com).

the idea of integrating the four language skills. However, the question is: Is it really like the way it is said? Moreover, there might be a bias while integrating skills, which results in differences in students' skills development. While the writers claim these coursebooks to be integrated enough, there might be one basic skill that might be developed more than others. Therefore, this study has been carried out to find whether there is any one of the skills that is developed more than the others at the end of the teaching process. Most of the authors, teachers, scholars, etc. focus on teaching the four language skills in integration but almost none of them question whether they are successful in fulfilling this aim; therefore, this study is intended to be a great example for all the relevant authority.

## LITERATURE REVIEW

Daily use of English necessitates the interconnection of all the four skills (listening, reading, speaking, and writing) and the language components (vocabulary, grammar and pronunciation); in other words, a must for communicating with the others in everyday life requires us to use the four skills in integration and in a simultaneous way rather than using in isolation. As Cunningsworth (1984: 86) says "In the actual language use, one skill is rarely used in isolation... Numerous communicative situations in real life involve integrating two or more skills"... For example, when you are speaking, you cannot claim that you are also not listening to others who are listening and sharing their ideas. Herson (1998: 22) states in an attempt to illustrate these communicative situations:

Nowadays, communication is the major aim for learning a foreign language. In daily life, these skills are seen in integration, for example, after reading a letter, usually an answer to this letter is written. So in the classroom the activities should be taught in integration to arrive at ease in communication. (as cited in Akar and Baturay, 2007: 17).

Similarly, Harmer (1983: 47) states teaching the skills in isolation is ridiculous and illustrates the use of skills in daily life as follows:

Someone who listens to a lecture may take notes and then write a report. The same person might also describe the lecture to his friends and follow it up by reading an article the lecturer suggested (as cited in Akar and Baturay, 2007: 20).

In addition, teaching the language skills and language components is a broad area, so there are several varying studies in ELT. Besides, there are also several course-

books claiming to integrate the four skills and language components, which leads us to carry on evaluation studies. However, in Turkey this is not the case; there are limited studies on coursebook evaluation and integrating the four skills. Even the studies carried on about coursebook evaluation fall short of focusing on integrating the four skills, because they mainly concentrate on explaining several variables in one coursebook evaluation study instead (Coskuner, 2002; Öztürk and Yurttagüller, 2003; Özdemir, 2007; Ezici, 2006; Oflaz, 2009; Solak, 2011; Taylan, 2013).

Among these scholars, Baturay and Akar (2007) aimed to show the differences between teaching reading in a discrete skill program and in an integrated skills program. They assessed reading in a different point of view, which caused a new category of the skills to come into existence: grammatical, functional, and thematic integration. They investigated randomly selected coursebooks used at Turkish schools to find out to what extent they were integrated. Throughout the study, they underpinned this new evaluation model of integrating skills. As a result, the researchers proposed an ideal model for integrating the four skills in coursebooks.

As it is clearly illustrated, a trend toward skill integration has blossomed recently. Curriculum designers, MONE in our case, have taken a language approach where reading, for instance, is treated as one of two or more integrated skills. The scholars have realized that by emphasizing what learners can do with the language, rather than using the forms of language or just learning the structures or the rules, EFL instructors can incorporate all the language skills into the classroom instruction. As Brown (2000) said, the richness of integrated-skill courses gives students greater motivation that converts to better retention of principles of effective speaking, listening, reading, and writing (as cited in Vernier, et al., 269). Therefore, the aim of the coursebooks is to help teachers' instruction and students' learning with this idea of integrating skills in practice. Somehow, the students might develop one of these four skills over the others as a result of coursebooks, classroom activities, teachers' way of instruction, etc. Therefore, it is important to find the underlying reasons for any one of the skills' development over others if there were any skill developed more. Therefore, the main purpose of this study is to find whether there is any one of the skills that is developed more than the others at the end of the teaching process.

In order to investigate this, the researcher has the following research questions:

1. To what extent is the coursebook *Yes You Can A1.2* effective according to the presentation of the four skills?
2. Is there a significant difference between the development of the four skills of the students before and

after the process?

3. Is there a significant difference between the development of the four skills in *Yes You Can A1.2*?

4. What might be the underlying reasons that lie behind the development of one of the four skills over others if there were any of the skills that is developed more than the other skills at the end of the teaching process?

## METHOD

### Design

The study is both qualitative and quantitative. A mixed and experimental study has been carried out according to a mixed design. Creswell (2006) defines mixed method as a method which “focuses on collecting, analyzing, and mixing both qualitative and quantitative data in a single study or series of studies” (Creswell, 2006: 5). Therefore, the reason why the mixed method has been chosen is to mix the qualitative and quantitative data to have more reliable results.

### Participants

The participants of the study are 9<sup>th</sup> and 10<sup>th</sup> grade students studying *Yes You Can A1.2* at schools including the Anatolian High Schools, High Schools and Multi-program High Schools, and English teachers teaching *Yes You Can A1.2*. In selecting the participants, the convenience sampling method was used because the target population was large and not accessible. Besides, the participants were selected on the voluntary basis. In the piloting, a total number of 231 students participated in the achievement test; 115 students and 15 teachers filled in the questionnaires. For the main study, the test was administered to 87 9<sup>th</sup> grade students; the questionnaires were applied to 121 students and to 106 English teachers.

The interviews were conducted with randomly selected 25 9<sup>th</sup> grade students among the participants of the main application of the questionnaire and the test. The teachers participating in these interviews were from different high schools in Şuhut, Afyonkarahisar. The number of the teachers participating in the interviews is low because the number of the English teachers in Şuhut is limited.

### Instruments

**Pre-test and post-test.** This achievement test (Appendix 1) was prepared by the researcher to identify and test students' ability in four language skills. So, the test was prepared under five categories: listening, reading, writing, speaking and function. Each of the five categories was graded in a balanced way.

The test was also prepared by taking the ‘can- do- statements’- provided by CEFR- of *Yes You Can A1.2* into consideration. In other words, the test was prepared according to the principles and general outcomes (Appendix 3) of CEFR for *Yes You Can A1.2*. The reason why all the questions were prepared in this perspective is that the coursebook itself was prepared according to the principles of CEFR. Besides, there are different types of questions in the test because the more varied the type of the questions is, the more it is for the benefit of students who has different learning styles and intelligence types.

Reading, writing and speaking parts were evaluated by two

graders and their average point were taken into consideration and for the assessment of open-ended questions, speaking and writing parts, criterion for the open-ended questions, a speaking rubric adapted from a website and a writing checklist were prepared by the researcher in order for the evaluators to see what they evaluate clearly. As a result of the main application, the correlations between the graders of the reading parts, writing parts and the speaking parts were calculated and found to be above 0.90; which shows that the criterion, rubrics and checklists have worked well.

**Questionnaires.** To gather data about students' and teachers' perceptions on the efficacy of *Yes You Can A1.2* in terms of four skills, two questionnaires (Appendix 4: Students' Questionnaire and Appendix 6: Teachers' Questionnaire) were developed. Before preparing the questionnaires, the literature was reviewed. Then, a pilot study was conducted to assess the clarity of the items and to ensure the reliability and the validity.

The questionnaires consisted of three-point Likert-scale items, rating questions and an open-ended item since these types of items are a useful and effective means of obtaining data about people's opinions. The response continuum was “agree, neutral, disagree”. The original version of the questionnaires was in English, but the student questionnaire was translated into Turkish by two English teachers. Two other English teachers translated back the Turkish into English. The aim for such a back translation is to ensure that the items are clear for those who will participate in the study. After that, the student questionnaire was administered in Turkish because it was thought that the students would have some difficulty in understanding the statements and the questions and even might provide the researcher with incorrect data.

The student and the teacher questionnaire consisted of the same questions to ensure the balance between the teachers and the students' understanding of the items and to compare the results of them for identifying the similarities and the differences between their answers.

**Focus group interviews.** 9 teachers and 25 students were interviewed to obtain qualitative data to support the quantitative data obtained via the questionnaires. The interview questions were prepared and piloted considering the key points in the questionnaires. The interview questions aimed to gather data to elaborate on the key issues about the four skills integration in *Yes You Can A1.2*. Besides, the interviews were used for triangulating the study through gathering detailed information.

### Procedure

The data collection procedure took place during the academic years 2012 - 2013 and 2013 - 2014.

In 2012 - 2013, the piloting of the test was done with 231 9<sup>th</sup> grade students. As a result of the piloting, the test was revised for the main study which would be carried out during the 2<sup>nd</sup> term of 2013 - 2014. The reason why the study was carried out in the 2<sup>nd</sup> term is that the selected level was appropriate for use in the 2<sup>nd</sup> term. Generally, in the 1<sup>st</sup> term, A1.1 level was preferred and in the 2<sup>nd</sup> term, A1.2 level was used as a continuation.

In the 1<sup>st</sup> term of 2013 - 2014, the piloting of the student questionnaire was done. The questionnaire was administered to 115 10<sup>th</sup> grade students and 15 teachers. After the data was collected, the questionnaires were analyzed by using IBM Statistical Package for Social Sciences (SPSS) 21. As a result of the analysis, necessary changes were made and the final form of the questionnaires was formed.

At the beginning of the 2<sup>nd</sup> term of 2013 - 2014, the pre-test was applied to 87 9<sup>th</sup> grade students. At the end of the term, the post-test was applied to the same group. After the students finished the post-test, the student questionnaire was administered to the group.

While examining the questionnaires, it was found out that 71 of them filled in the questionnaire appropriately. Meanwhile, a colleague from another school applied the questionnaire to 50 students in her school, all of whom participated voluntarily. The reason why the questionnaire was applied to an additional group was to increase the generalizability of the findings.

Immediately after the administration of the questionnaire, a focus group interview with the randomly selected 25 9<sup>th</sup> grade students among the participants of the questionnaire and the test was conducted and recorded with smart phone.

On the same day, a focus group interview with teachers again among the participants of the questionnaire was also conducted and recorded with smart phone.

At the end of the 2<sup>nd</sup> term of 2013 - 2014, the teacher questionnaire was filled in online by 106 teachers from different high schools in Turkey who taught *Yes You Can A1.2* at least one semester, by this way who were familiar with the coursebook. In order to reach the teachers, the online platforms and ELT groups on Facebook were used. The questionnaire was designed on Google Forms and was shared on ELT platforms at some intervals to attract the attention of English teachers. Approximately in 2 months' time, the number of the teachers filling the questionnaire exceeded 100, which is thought to be enough for the generalizability of the findings.

### Data analysis

The data were analyzed both quantitatively and qualitatively. While the tests and the questionnaires were analyzed quantitatively using programmes such as Microsoft Excel and IBM SPSS, the interviews were analyzed qualitatively.

For the analysis of the pre and post - tests, students' points were entered into the Microsoft Excel by the researcher to make the necessary calculations. After that, this data were analyzed by a statistician to find out the reliability and the validity of the test results. After it was proved to be reliable via the analysis on IBM SPSS, the mean scores were calculated.

For the analysis of the questionnaires, necessary calculations were carried out on IBM SPSS and Microsoft Excel. The data were analyzed using mean scores, frequencies, and percentages. For each part of the questionnaires, the mean scores, standard deviations, frequencies and percentages of the answers 'agree-neutral-disagree' were calculated, tabulated and charted. IBM SPSS was also used to calculate the reliability of the questionnaires.

For the final form of the data analysis, a four-way analysis was carried out by combining the results of the pre - posttest comparison, questionnaires, interviews and the researcher's in-depth analysis concerning the integration of the four skills in *Yes You Can A1.2*. The aim of such a design is to triangulate the study to find out whether the students' test results; the teachers' and students' answers to the questionnaire and to the interview are consistent.

Qualitative data collected via interviews were transcribed, content - analyzed and grouped. Then, the student interview and the teacher interview data were compared.

## RESULTS

As aforementioned previously, this thesis has four

research questions, so the analysis and the interpretation will be done under four headings.

### First research question - To what extent is the coursebook *Yes You Can A1.2* effective according to the presentation of the four skills?

This question aims to reveal whether the coursebook is effective in terms of bettering students' four language skills and whether there is progression or regression in them. Besides, it aims to find out to what extent there is increase or decrease in students' four skills development.

First of all, the students' pre-test results were at normal levels; students could just answer nearly half of the questions correctly. When the mean of the students' points in the pre-test (54.94 out of 100) is examined, it is seen that students answered a little more than half of the questions before using *Yes You Can A1.2*. When the mean of the students' points in the post-test (62.82 out of 100) is examined, it is seen that there is almost 8 points increase in students' test results after using *Yes You Can A1.2*, which signals this coursebook helps learners better their four skills. This can be seen in Table 1.

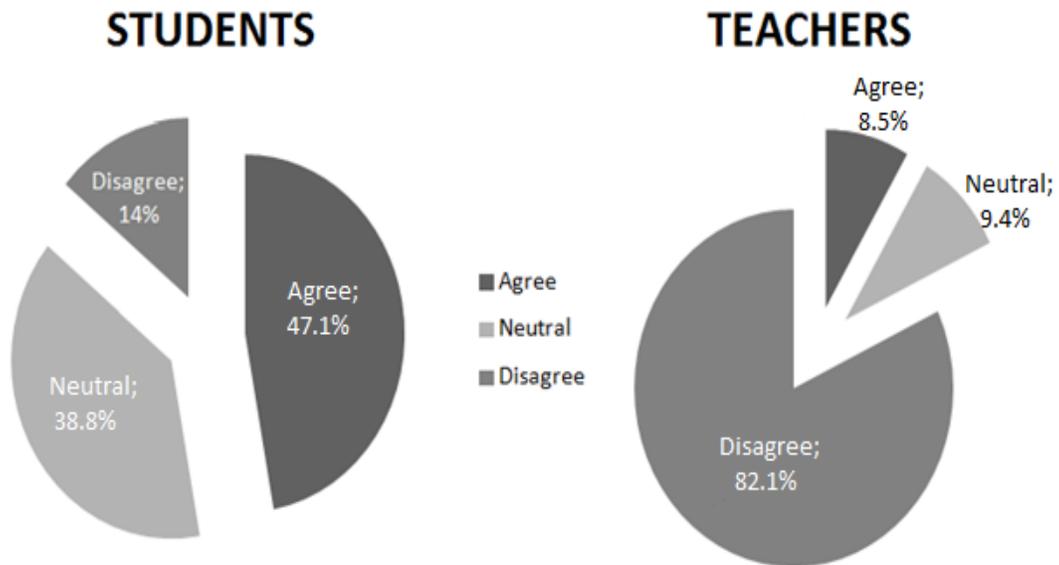
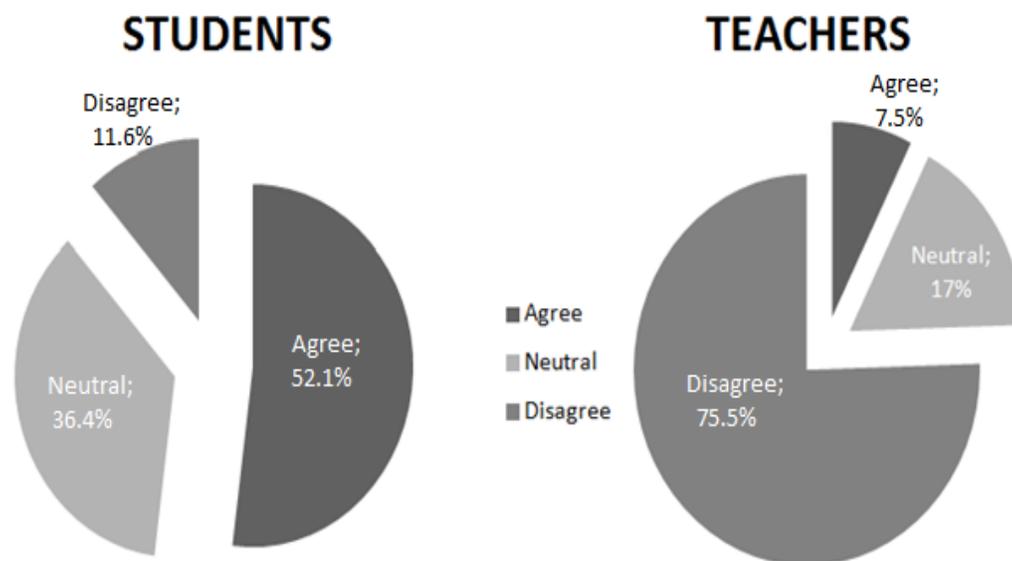
As this coursebook helped students increase their test points in all the four skills and in the function part after they used it for one term, it is possible to say that *Yes You Can A1.2* is effective in terms of helping students better their four skills and grammar knowledge. The test results are also supported by the students' opinions. When the questionnaire findings are examined for each part, it is seen that students are inclined to state their positive feelings, which signals that they are content with the efficacy of the coursebook in terms of developing four language skills. Moreover, as can be seen in Figures 1 and 2, almost half of the students find this coursebook sufficient and more than half of them find it appropriate in developing the four skills.

However, students in the interviews state varying opinions about its efficacy. They stated negative feelings for the four skills, grammar and content parts, but this was done most probably with their focus on demerits of the coursebook; they just concentrated on the negative sides of it.

For the teachers, this coursebook is not effective in terms of developing students' four skills because they stated their negative feelings about it. According to the teachers, this coursebook does not lead to development in all the four skills and grammar. As can be seen in Figure 1, when they were asked whether this coursebook is sufficient in terms of developing students' four skills, 82.1% of them opposed to it. As can be seen in Figure 2, when they were asked whether this coursebook is appropriate in terms of developing students' four skills, 75.5% stated it is inappropriate. During the interviews,

**Table 1.** Mean scores of the pre-test and post-test results of the students.

	Listening		Reading		Function		Writing		Speaking		Total	
	PRE	POST	PRE	POST	PRE	POST	PRE	POST	PRE	POST	PRE	POST
MEAN	9.20	11.02	8.77	10.74	12.24	13.31	13.05	14.20	11.69	13.55	54.94	62.82
SD	3.92	4.01	4.41	3.68	3.19	2.77	2.68	2.65	3.36	3.90	13.19	12.78

**Figure 1.** Comparison of students' and teachers' opinions about the sufficiency of *Yes You Can A1.2* in developing four skills.**Figure 2.** Comparison of students' and teachers' opinions about the appropriateness of *Yes You Can A1.2* in developing four skills.

the teachers just talked about its inefficiency in developing all the four skills.

If the students' and the teachers' opinions are compared, it is seen that they hold different views. Whereas most of the students talk about the efficacy of this coursebook, a great number of teachers talked about its inefficiency. There is dilemma between students and teachers; however, to use the coursebook effectively and benefit from it efficiently, there should be a consensus between the students and the teacher. When the fact that teachers have more pedagogical knowledge about the efficacy of four language skills and experience with a variety of coursebooks is taken into consideration, it can be said that teachers are better at determining whether a coursebook is effective in terms of developing the four skills.

### **Second research question - Is there a significant difference between the development of the four skills of the students before and after the process?**

This research question aims to reveal whether there is any difference between students' pre and post-test results.

The average points of all the participants in the listening parts of the pre-test is 9.20; it is 11.02 in the post-test. There is 1.82 points increase in students' performance in listening. The average points of all the participants in the reading parts of the pre-test is 8.77; it is 10.74 in the post-test. There is 1.97 points increase in students' performance in reading. The average points of all the participants in the function parts of the pre-test is 12.24; it is 13.31 in the post-test. There is 1.07 points increase in students' performance in the function parts. The average points of all of the participants in the writing parts of the pre-test is 13.05; it is 14.20 in the post-test. There is 1.15 points increase in students' performance in writing. The average points of all of the participants in the speaking parts of the pre-test is 11.69; it is 13.55 in the post-test. There is 1.86 points increase in students' performance in speaking. In total, students' 54.94 points average score increased to 62.82 points average score in the post-test, which shows that *Yes You Can A1.2* helped students increase their test points.

It is clear that students increased their points in all the parts. They increased their reading performance in the post-test by 22.46%, their listening performance by 21.73%, speaking performance by 15.91%, writing performance by 8.81% and the grammar knowledge by 8.74%. This increase can be acceptable in terms of considering the success of this coursebook, but the percentage of increase can be better than these percen-

tages. The percentages can be seen in Chart 3. Additionally, the fact that students come to high school with some knowledge and proficiency in the four skills and in grammar should also be kept in mind while interpreting the results. Almost in all the parts of the pre-test, students answered more or less half of the questions correctly, which shows that students might have already been familiar with some of the themes and topics of the coursebook and the tests.

### **Third research question - Is there a significant difference between the development of the four skills in *Yes You Can A1.2*?**

This question aims to reveal whether there is any one of the skills that is developed more than the others after using *Yes You Can A1.2*.

It is already revealed that there is an increase in all parts of the test, but providing the increase in each part of the test in percentages gives us more clear ideas. Therefore, when the percentage of increase in each language skill is calculated, it is seen that the skill students increased their points most is reading with 22.46%, which signals the probability that the main focus in this coursebook is on reading; in other words, that this coursebook is reading dominant or reading biased. As of the second comes listening with 21.73% increase, which can be a signal for the probability that this coursebook might also be listening dominant or listening biased. The percentages are given in Figure 3.

If we look at the opinions of the students and the teachers in the questionnaires, it can be seen that the students are content with the efficacy of this coursebook in developing their reading skill, but that teachers are not content with it. If the students' and teachers' answers are compared for the listening skill development, the same observation can be made: Whereas students like the listening parts, teachers do not. As students and teachers hold different views in the questionnaire, the interview findings are of great significance.

In the interviews students stated that there are a lot of reading texts in the coursebook. This was also supported by most of the teachers. Teachers stated that there are a lot of good reading texts although the activities provided with them are not enough. Teachers also highlighted there is nothing wrong with the reading texts as they are colored and interesting. Teachers also pinpointed that the level of the reading texts and the reading activities is also acceptable and appropriate. Although students and teachers generally fall apart in the questionnaires, in the interviews they generally stated similar opinions. In short, both of the groups find the reading parts acceptable and

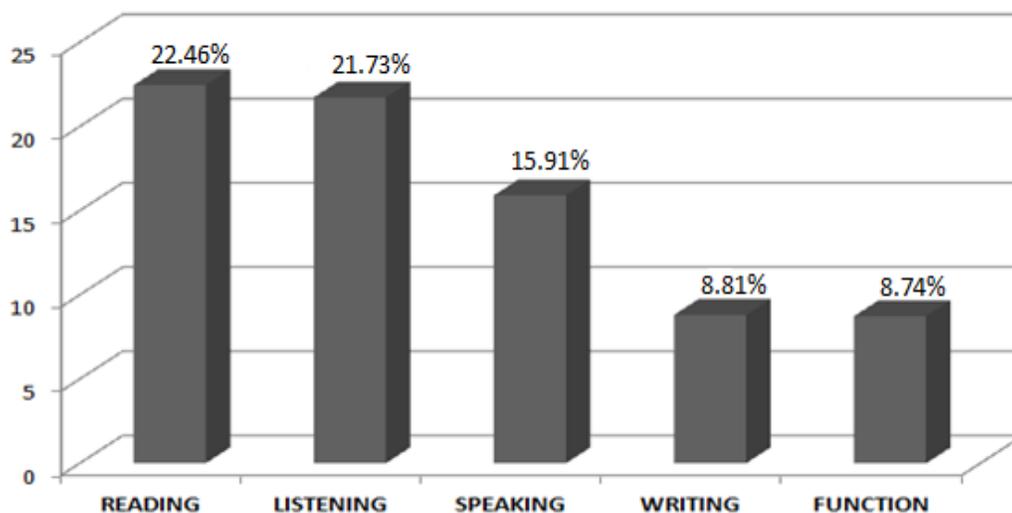


Figure 3. Percentage of increase in the parts of the test.

appropriate in terms of developing reading skill.

As of the last, the researcher asked students and teachers to order the four skills according to the duration spent on each of them from the most to the least in *Yes You Can A1.2* in English lessons. To this question, both the students and the teachers, although the number of students and teachers participating in the questionnaires are different, state that most of the time in *Yes You Can A1.2* is spent on the reading skill. Both most of the students and most of the teachers put the reading skill in the 1<sup>st</sup> place out of the four skills when they consider the time spent on the activities in each part of the coursebook. In the interviews, students talked about *Yes You Can A1.2*'s inefficacy in developing the four skills and added that this coursebook is reading dominant although it tries to develop other skills. Teachers also emphasized that it is a reading biased coursebook. Meanwhile, teachers added that it also sprinkled some speaking and writing activities in it perfunctorily.

**Fourth research question - What might be the underlying reasons that lie behind the development of one of the four skills over others if there were any of the skills that were developed more than the other skills at the end of the teaching process?**

This question was prepared in case there may be bias in terms of teaching the four language skills, which is also the starting point and claim of this article. To answer this question, the researcher used a teacher questionnaire, a student interview and a teacher interview after it was

found out that this book might be reading skill dominant or listening skill dominant because students increased their points in these parts of the tests. The students and the teachers listed several possible reasons for the inefficacy of this coursebook in developing all the four skills.

*Reasons according to the students.* The possible reasons for the students can be summarized as:

1. This coursebook includes some interesting songs, games, puzzles, etc., but students stated that they do not focus on these kinds of things.
2. Students do not do the speaking activities in pairs; instead they do them with their teachers, so there is more teacher-student interaction rather than student-student interaction the activities of the coursebook necessitate.
3. As the students do not speak with each other, they think they do not understand the language.
4. The activities are not daily routine activities or students do not understand if they were actually daily routine activities.
5. There is not enough vocabulary leading students to speak because most of the students think they need vocabulary to speak.
6. Students do not understand the listening texts, which leads the teachers not to do the activities.
7. There are not enough additional materials such as films, animations, etc. provided by the coursebook.

*Reasons according to the teachers.* The possible reasons for the teachers can be summarized as:

1. The levels A1.1 and A1.2 are almost the same, which leads students to boredom.
2. This coursebook teaches English to students as if they were learning their mother language, but the students are not acquiring their mother language; they are learning a new foreign language.
3. You cannot create the daily life in the classroom.
4. Students do not feel the necessity to learn a foreign language.
5. The coursebooks are not prepared by the teachers working at schools; instead they are prepared by the academicians who have not enough experience in the classroom atmosphere. Most of the things in the coursebook are utopic.
6. Peer correction is a nice idea, but it leads to incorrect learning.
7. Students are not familiar with the characters in the activities, so they do not attract their attention.
8. Instead of the activities in the coursebook, the teachers copy some additional activities that attract students' attention.
9. This coursebook does not generate active students, instead it generates active teachers.

The researcher also gathered some information about teachers' teaching methods and perceptions about teaching English, which are thought to be possible reasons for the development of one of the four skills over others.

1. There is a group of 52% teachers who agree or stay neutral to the opinion that teachers should focus on teaching grammar.
2. There is a group of 16% teachers who disagree or stay neutral to the opinion that teachers should provide opportunities for students to make them use English through meaningful tasks and activities.
3. There is a group of 43% teachers who agree or stay neutral to the opinion that they do not speak English in the classroom.
4. There is a group of 11% teachers who disagree or stay neutral to the opinion that exams should be based on four skills.
5. There is a group of 12% teachers who agree or stay neutral to the opinion that teaching grammar is more important than teaching four skills.
6. There is a group of 26% teachers who agree or stay neutral to the opinion that form is more important than usage while teaching grammar.
7. There is a group of 44% teachers who disagree or stay neutral to the opinion that structures can be neglected while teaching grammar, instead that usage should be emphasized.

8. There is a group of 11% teachers who agree or stay neutral to the opinion that s/he neglects reading in the exams.
9. There is a group of 36% teachers who agree or stay neutral to the opinion that s/he neglects writing in the exams.
10. There is a group of 74% teachers who agree or stay neutral to the opinion that s/he neglects listening in the exams.
11. There is a group of 83% teachers who agree or stay neutral to the opinion that s/he neglects speaking in the exams.

## DISCUSSION

The studies done in the four language skills integration and coursebook evaluation have been presented in literature review. Thus, their findings will be discussed in this part in comparison with the findings of this study.

There are a number of coursebook evaluation studies, some of which aim to find the perceptions of the teachers, students and sometimes both in the same study while some of which aim to compare the two similar coursebooks in terms of the same criteria.

In her study Özdemir (2007) aimed to find out how the fourth grade students and their teachers evaluated the coursebook 'Time for English 4' in terms of purpose, approach, visual design, presentation of vocabulary and language, practice activities and exercises, supporting sources, and supporting materials. At the end, it was found out that both teachers and student found the coursebook effective in terms of meeting their language needs, but that students were a little more satisfied. As Cunningsworth (1995: 15) claims, coursebooks should correspond to both learners' and teachers' needs in addition to its match with the aims and objectives of the language teaching programme. Therefore, this is the desired situation in the application of newly developed coursebooks, which is contrary to what is found in this study; students and teachers have not expressed similar or same opinions.

In her study Ezici (Çakıt) (2006) aimed to assess the effectiveness of "New Bridge to Success" on the basis of eleven criteria from the perspectives of teachers and students. At the end, it was concluded both the teachers and the students felt negative about most of the characteristics of the coursebook. In addition, both of the participant groups mentioned the reading passages needed simplification in terms of vocabulary load and structures, level of the coursebook needed to be made appropriate for that age group and that the materials in the coursebook need to consider the style preferences of

the visual, auditory and kinesthetic students. These are the negative aspects uttered by the students and the teachers. Nevertheless, it was found out that the coursebook was up-to-date. This is the positive aspect again uttered both by students and teachers. In such studies in which students and teachers hold similar or same opinions, it was easy to reach some conclusions, which is again just contradictory to what is come across in the present study.

In another study on New Bridge to Success for Grade 9 Elementary, Dilek (2009) investigated vocabulary teaching aspects of reading texts. She distributed a questionnaire to students and teachers and she aimed to find out how students and teachers evaluate the coursebook according to the reading skill, how they evaluate the reading texts according to vocabulary teaching aspect, the techniques the teachers use to teach vocabulary while reading, the techniques the students use when they come across with an unknown word and the techniques the students use to learn a new vocabulary. The results revealed that both the teachers and the students are negative about most of the characteristics of the reading texts and vocabulary aspects. This result also differs from what is found in this study because teachers and students stated their negative feelings in conformity with each other as opposed to the present study.

In a similar study, Taylan (2013) aimed to find out the effectiveness of 'Breeze 9' in terms of following categories: aims, grammar teaching, communicative activities and its presentation, and needs and interests. At the end, it was found out that there was not a consensus between the students and the teachers: the students claimed that the coursebook is highly effective while the teachers claimed just the opposite. The findings of Taylan's study and this study bear a resemblance: Like Taylan (2013), it was concluded that students are content with *Yes You Can A1.2* in terms of its efficacy in helping them better their four skills while teachers state that it is not effective.

As of the last, Çelik and Kasapoğlu (2014) conducted a study on recent curricular changes in English teaching in Turkey, which tries to get the opinions of elementary school administrators. They try to assess the efficiency of the new curriculum, which is of great importance for this study, too because the evaluation of a coursebook used in the high schools in terms of their efficiency in teaching the four language skills in integration is the continuation of the processes initiated in their primary and elementary education. Therefore, the efficiency of the curriculum of the primary and the elementary education is significant for the development in the latter stages.

There are some other studies which focus on evaluation of language programmes or coursebooks and four skills integration in these coursebooks, but almost

none of them focused on integrated skills bias with the perspective similar to this article. Therefore, the findings gathered about *Yes You Can A1.2* widely used in high schools in Turkey provide teachers, scholars and some other relevant authorities with a new perspective for designing coursebooks.

## Conclusion

This study has been done to find out the efficacy of *Yes You Can A1.2* in terms of developing the four language skills equally, to investigate whether there is any one of the four skills that is developed more than the other three language skills, and to find out the reasons for this if there were any.

In conclusion, it has been found out that *Yes You Can A1.2* does not develop all the four language skills equally because of a variety of reasons aforementioned in the discussion part. Instead, it can be claimed that this coursebook might not be integrating the four language skills as planned and as thought by its writers and by MONE.

In addition, it was found out that the skill developed more than the other language skills is reading because students' test results in the reading test have increased, and students and teachers, in the questionnaires and the interviews, stated that *Yes You Can A1.2* develops reading more and that it is reading dominant or reading biased.

## Conflict of Interests

The author(s) have not declared any conflict of interests.

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**APPENDIX 1:** *Yes You Can A1.2* Pre-Test/ Post-Test. \*LISTENING I: Listen and find if the sentences are 'True' or 'False'. (5 p.).

**\*LISTENING I: Listen and find if the sentences are 'True' or 'False'. (5 p.)**

		<b>T</b>	<b>F</b>
<b>1</b>	Jim wants to speak to Pete.		
<b>2</b>	Jim's surname is P-E-T-E-R-S-E-N		
<b>3</b>	Jim wants to leave a message to Pete.		
<b>4</b>	Jim's phone number is 550-6108.		
<b>5</b>	Pete is there.		

\*This listening tape recording has been taken from the following cite:  
<http://fog.ccsf.cc.ca.us/~lfried/call/phoneconv.html>

**\*LISTENING II: Listen and choose the correct option. (6p.)**

1-) What kind of listening text is that?

- a. a radio show    b. a music contest    c. a telephone conversation    d. a TV programme

2-) What is DJ's name?

- a. Kath Baker    b. Ken Stevens    c. Jim Hansen    d. Eddie Baker

3-) Who is Kath?

- a. Eddie's mother    b. Eddie's girlfriend    c. Eddie's wife    d. Eddie's aunt

4-) What is the importance of today?

- a. Kath's graduation    b. Kath's anniversary    c. Kath's farewell party    d. Kath's birthday

5-) Where does Eddie work?

- a. At a shop    b. At a bank    c. At a restaurant    d. At a radio

6-) Where does Kath work?

- a. At a shop    b. At a bank    c. At a restaurant    d. At a radio

**Listen again. Look at the activities or things and decide who likes which one. Put a tick (✓).(9 p.)**

		<b>Eddie likes...</b>	<b>Kath likes...</b>
<b>7</b>	<b>Doing judo</b>		
<b>8</b>	<b>Sailing</b>		
<b>9</b>	<b>Watching TV</b>		
<b>10</b>	<b>Reading books</b>		
<b>11</b>	<b>Indian food</b>		
<b>12</b>	<b>Hot food</b>		
<b>13</b>	<b>Italian food</b>		
<b>14</b>	<b>Rock Music</b>		
<b>15</b>	<b>Opera</b>		

\*This listening tape recording has been taken from the following book:  
 English for Life Elementary by Tom Hutchinson Oxford University Publish Page 15

**\*READING I:**

**Read the text and choose the suitable title for the text. (2 p.)**

- A) JIM'S FREE TIME ACTIVITIES
- B) JIM'S FAMILY AND FRIENDS
- C) JIM'S DAILY ROUTINE
- D) JIM'S SCHOOL LIFE



Jim is eleven years old and he lives in Brighton, England.

He usually gets up at a quarter to eight, he has a shower, gets dressed and then he brushes his teeth. After that, he goes downstairs and has breakfast. For breakfast he usually has milk, toast and orange juice. Then he brushes his teeth again because he likes them white and healthy!

Then he takes her school bag and goes to the bus stop to catch the school bus. Classes start at half past eight and finish at half past four. He usually has lunch at the school canteen with his schoolmates at about 12 o'clock. His best friend is Pete and Jim

always sits next to her at lunch.

After school he returns home and does his homework. He is a very hard-working pupil and he never misses a school task! After homework, he usually listens to music and watches television a bit.

At half past seven it is time for dinner. Then he usually reads a book or chats with his parents for a while.

Finally, he goes to bed at about ten o'clock, but before that he brushes his teeth. Jim is a happy little boy!

**Answer the questions according to the text. (7 p.)**

1-) What does he eat for breakfast?

\_\_\_\_\_

2-) Why does he brush his teeth?

\_\_\_\_\_

3-) How does he go to school?

\_\_\_\_\_

4-) When does the school start?

\_\_\_\_\_

5-) Is Jim a lazy student?

\_\_\_\_\_

6-) Does he miss a school task?

\_\_\_\_\_

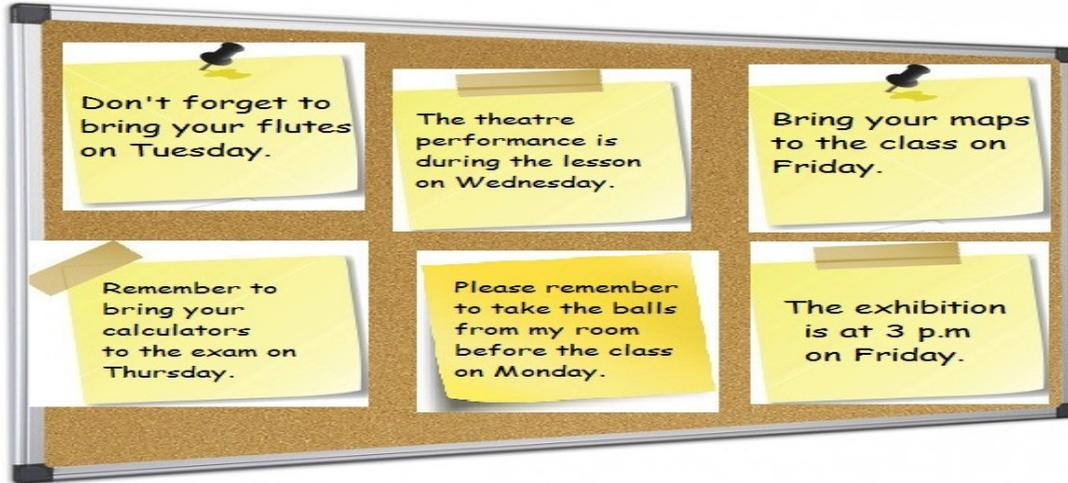
7-) How many times a day does he brush his teeth?

\_\_\_\_\_

\*This reading text has been adapted from the following cite:

[http://en.islcollective.com/worksheets/search\\_result?Tags=Sophie%27s+daily+routine&Skill=Reading](http://en.islcollective.com/worksheets/search_result?Tags=Sophie%27s+daily+routine&Skill=Reading)

**READING II:** Look at the notice board. According to the notes, fill in the timetable with school subjects. (6 p.)



**Answer the questions according to the timetable. (5 p.)**

1-What is the third lesson on Wednesday?  
-----

2-When is the History class?  
-----

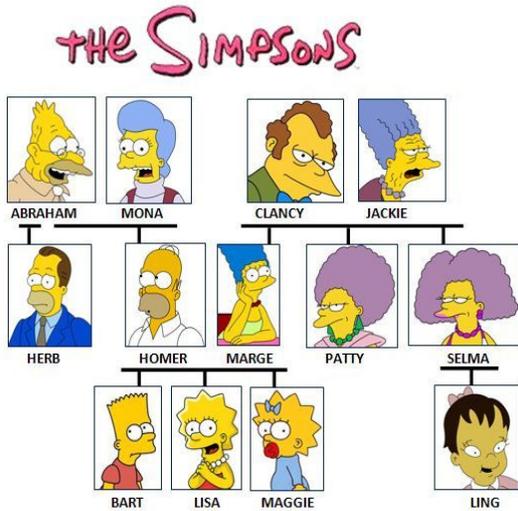
3-What time is the R.E class on Wednesday?  
-----

4-What is the sixth lesson on Monday?  
-----

5-What time is the English lesson on Monday?  
-----

	9.00-9.50	10.00-10.50	11.00-11.50	12.00-12.50	LUNCH BREAK	14.00-14.50	15.00-15.50
MONDAY			PHYSICS	PHYSICS		ENGLISH	ENGLISH
TUESDAY	CHEMISTRY	CHEMISTRY				FRENCH	FRENCH
WEDNESDAY	R.E	BIOLOGY	BIOLOGY	ICT			
THURSDAY	ENGLISH	ENGLISH				HISTORY	HISTORY
FRIDAY			MATHS	MATHS		ICT	

**\*FUNCTION I:** Look at the family tree of the Simpsons and complete the blanks with the family vocabulary. (5 p.)



- 1-)Mona is Abraham's \_\_\_\_\_.
- 2-)Homer is Abraham and Mona's \_\_\_\_\_.
- 3-)Homer is Marge's \_\_\_\_\_.
- 4-)Jackie is Ling's \_\_\_\_\_.
- 5-)Ling is Bart's \_\_\_\_\_.
- 6-)Bart is Lisa's \_\_\_\_\_.
- 7-)Marge is Lisa's \_\_\_\_\_.
- 8-)Patty is Bart's \_\_\_\_\_.
- 9-)Herb is Lisa's \_\_\_\_\_.
- 10-)Marge, Patty and Selma are \_\_\_\_\_.

\*This diagram has been taken and adapted from the following cite:  
[http://en.islcollective.com/worksheets/worksheet\\_page?id=28447](http://en.islcollective.com/worksheets/worksheet_page?id=28447)

**FUNCTION II: Read the questions and choose the correct option. (15 p.)**

- 1-A: \_\_\_\_\_?  
 B: It is 35, Yalı Street, Afyonkarahisar.  
 a. Where is your address?  
 b. What is Yalı Street?  
 c. What is your address?  
 d. Is your home on Yalı Street?
- 2-A: Excuse me, \_\_\_\_\_?  
 B: It is between the post office and the cinema.  
 a. where is the post office?  
 b. can you tell me where the shop is?  
 c. how can I get to the cinema?  
 d. is the post office far?
- 3-A: \_\_\_\_\_?  
 B: She is a doctor.  
 a. Where does she work?  
 b. What is her nationality?  
 c. What does she do?  
 d. What is her work?
- 4-March is my favourite \_\_\_\_\_.  
 a. day  
 b. month  
 c. year  
 d. season
- 5-A: When is the national match?  
 B: \_\_\_ Saturday.  
 a. on  
 b. in

- c. at  
 d. to
- 6-A: Whose is this car?  
 B: It is \_\_\_\_\_.  
 a. Ali  
 b. Alis'  
 c. Ali's  
 d. Alis
- 7-Do you like \_\_\_\_\_ friends?  
 a. meet  
 b. meeting  
 c. to meeting  
 d. to meet
- 8-A: \_\_\_\_\_?  
 B: It is purple.  
 a. What is her hair?  
 b. What color are her eyes?  
 c. What color is her skirt?  
 d. What is her color skirt?
- 9-Ayşe is good \_\_\_ painting.  
 a. in    b. to    c. about    d. at
- 10-A: \_\_\_\_\_ cooks at home?  
 B: My father.  
 a. Who  
 b. Whose  
 c. What  
 d. When
- 11-What is your favorite room at home?  
 a. Kitchen  
 b. Lunch  
 c. Florist

12-A: Where were you \_\_\_\_\_?  
 B. I was at the match with my friends.  
 a. tomorrow  
 b. now  
 c. often  
 d. yesterday

13-She is studying \_\_\_\_\_ she has an exam tomorrow.  
 a. and b. but c. or d. because

14-What is the weather like?

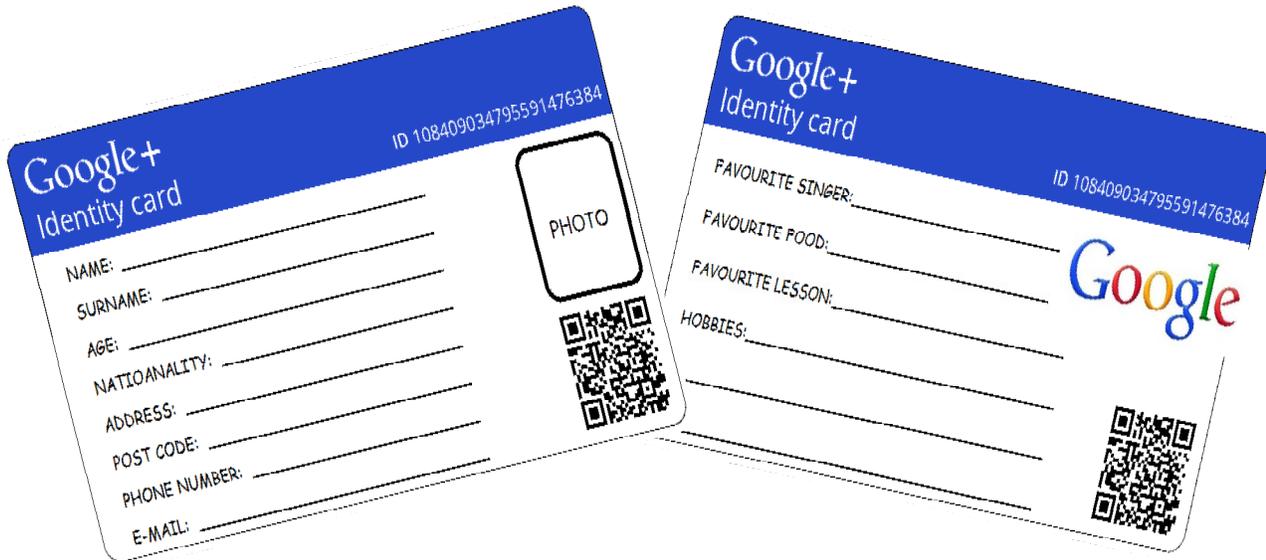
- a. windy
- b. cloudy
- c. snowy
- d. rainy



15-A: \_\_\_\_\_ are these sandals?  
 B: They are \$20.

- a. How many
- b. How much
- c. What
- d. Why

**WRITING I:** Fill in the Google Identity Card information according to yourself. (12 p.)



**CHOOSE JUST ONE OF THEM FROM THE FOLLOWING!!!**

**WRITING II:** Describe the table using there is/ there are/ there isn't/ there aren't. (8 p.) Use "and, but, because". Write at least 4 sentences.



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**WRITING II:** Draw a family tree. Describe the people in your family. "Who are they? How old are they? What do they like/ dislike? What are their favorite activities?, etc." Write at least 4 sentences (8 p.)

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**SPEAKING I:** Choose four of the people and describe them in detail. "What are they wearing? What colour are they? What color is their hair? What is their hair type? What do they have?" (8 points)



\*This picture was taken from the following cite: <http://www.eslprintables.com/>

\*\*This picture was taken from thlowing cite: <http://aprendamosfacil.wordpress.com/category/describing-people/>

\*\*\*This picture was taken from the following cite: [http://en.islcollective.com/worksheets/worksheet\\_page?id=911](http://en.islcollective.com/worksheets/worksheet_page?id=911)

**SPEAKING II:** Choose one of the questions and talk about it.

**A) Compare these United States classrooms with your classroom. You can use get benefit from the useful vocabulary. (4 points)**

**B) Compare these African classrooms with your classroom. You can use get benefit from the useful vocabulary. (4 points)**

**A**



LAPTOPS  
DESKS  
TABLES  
BOOKSELVES  
SOFAS  
CARPETS  
SMART BOARDS  
DVD PLAYERS  
INTERNET  
CONNECTION

**B**



THERE IS  
THERE ARE  
BUT  
AND

**SPEAKING III:** Talk about yourself, your family, your favourite friend, your hobbies, your likes, your dislikes. (8 points)

**THE TEACHER IS SUPPOSED TO GUIDE THE CHILDREN ASKING SOME OF THE FOLLOWING QUESTIONS DURING THE CONVERSATION!!!**

- What does your mother do?
- What does your father do?
- How old are they?
- Where do you live?
- What kind of food do you like most?
- Who is your favourite singer?
- What do you do in your free time?
- Who is your best friend?

**APPENDIX 2:** *Yes You Can A1.2* Pre-Test/ Post-Test-Answer Key

**\*LISTENING I:** Listen and find if the sentences are 'True' or 'False'. (5 p.)

		T	F
1	Jim wants to speak to Pete.	✓	
2	Jim's surname is P-E-T-E-R-S-E-N		✓
3	Jim wants to leave a message to Pete.	✓	
4	Jim's phone number is 550-6108.	✓	
5	Pete is there.		✓

\*This listening tape recording has been taken from the following cite:  
<http://fog.ccsf.cc.ca.us/~lfried/call/phoneconv.html>

**\*LISTENING II:** Listen and choose the correct option. (6p.)

- 1-) What kind of listening text is that?  
**a. a radio show**      b. a music contest      c. a telephone conversation      d. a TV programme
- 2-) What is DJ's name?  
a. Kath Baker      **b. Ken Stevens**      c. Jim Hansen      d. Eddie Baker
- 3-) Who is Kath?  
a. Eddie's mother      b. Eddie's girlfriend      **c. Eddie's wife**      d. Eddie's aunt
- 4-) What is the importance of today?  
a. Kath's graduation      b. Kath's anniversary      c. Kath's farewell party      **d. Kath's birthday**
- 5-) Where does Eddie work?  
**a. At a shop**      b. At a bank      c. At a restaurant      d. At a radio
- 6-) Where does Kath work?  
a. At a shop      **b. At a bank**      c. At a restaurant      d. At a radio

**Listen again.** Look at the activities or things and decide who likes which one. Put a tick (✓).(9 p.)

		Eddie likes...	Kath likes...
7	Doing judo		✓
8	Sailing	✓	
9	Watching TV	✓	
10	Reading books		✓
11	Indian food		✓
12	Hot food		✓
13	Italian food	✓	
14	Rock Music	✓	
15	Opera		✓

\*This listening tape recording has been taken from the following book:

English for Life Elementary by Tom Hutchinson Oxford University Publish Page 15

\***READING I:** Read the text and choose the suitable title for the text. (2 p.)

- A) JIM'S FREE TIME ACTIVITIES
- B) JIM'S FAMILY AND FRIENDS
- C) JIM'S DAILY ROUTINE**
- D) JIM'S SCHOOL LIFE



Jim is eleven years old and he lives in Brighton, England.

He usually gets up at a quarter to eight, he has a shower, gets dressed and then he brushes his teeth. After that, he goes downstairs and has breakfast. For breakfast he usually has milk, toast and orange juice. Then he brushes his teeth again because he likes them white and healthy!

Then he takes her school bag and goes to the bus stop to catch the school bus. Classes start at half past eight and finish at half past four. He usually has lunch at the school canteen with his schoolmates at about 12 o'clock. His best friend is Pete and Jim always sits next to her at lunch.

After school he returns home and does his homework. He is a very hard-working pupil and he never misses a school task! After

homework, he usually listens to music and watches television a bit.

At half past seven it is time for dinner. Then he usually reads a book or chats with his parents for a while.

Finally, he goes to bed at about ten o'clock, but before that he brushes his teeth. Jim is a happy little boy!

**Answer the questions according to the text. (7 p.)**

1-) What does he eat for breakfast?

**He usually has milk, toast and orange juice.**

2-) Why does he brush his teeth?  
**Because he likes them white and healthy!**

3-) How does he go to school?  
**He goes to school by bus.**

4-) When does the school start?  
**The school starts at half past eight.**

5-) Is Jim a lazy student?  
**No, he isn't. He is a hardworking pupil.**

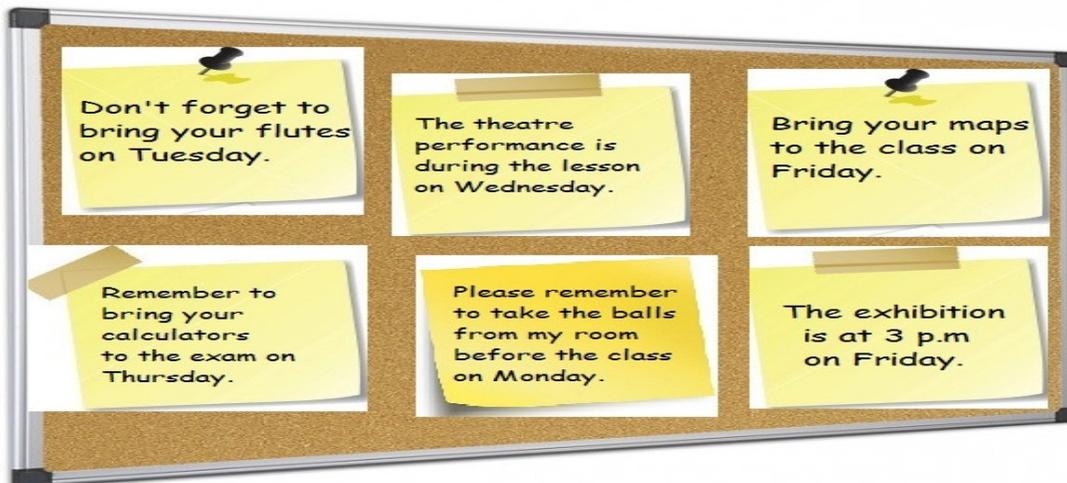
6-) Does he miss a school task?  
**No he doesn't. He never misses a school task.**

7-) How many times a day does he brush his teeth?  
**He brushes his teeth three times a day.**

\*This reading text has been adapted from the following cite:

[http://en.iscollective.com/worksheets/search\\_result?Tags=Sophie%27s+daily+routine&Skill=Reading](http://en.iscollective.com/worksheets/search_result?Tags=Sophie%27s+daily+routine&Skill=Reading)

**READING II:** Look at the notice board. According to the notes, fill in the timetable with school subjects. (6 p.)



	9.00-9.50	10.00-10.50	11.00-11.50	12.00-12.50	LUNCH BREAK	14.00-14.50	15.00-15.50
MONDAY	<i>P.E- Physical Education</i>		PHYSICS	PHYSICS		ENGLISH	ENGLISH
TUESDAY	CHEMISTRY	CHEMISTRY	<i>Music</i>			FRENCH	FRENCH
WEDNESDAY	R.E	BIOLOGY	BIOLOGY	ICT		<i>Literature- Drama</i>	
THURSDAY	ENGLISH	ENGLISH	<i>Maths</i>			HISTORY	HISTORY
FRIDAY	<i>Geography</i>		MATHS	MATHS		ICT	<i>Art</i>

**Answer the questions according to the timetable. (5 p.)**

- 1-What is the third lesson on Wednesday?  
**It is Biology.**  
 2-When is the History class?  
**It is on Thursday.**  
 3-What time is the R.E class on Wednesday?  
**It is at 9 o'clock.**

- 4-What is the sixth lesson on Monday?  
**It is English.**  
 5-What time is the English lesson on Monday?  
**It is at 14 o'clock.**

**\*FUNCTION I:** Look at the family tree of the Simpsons and complete the blanks with the family vocabulary. (5 p.)



- 1-)Mona is Abraham's **wife**.  
 2-)Homer is Abraham and Mona's **son**.  
 3-)Homer is Marge's **husband**.  
 4-)Jackie is Ling's **grandmother**.  
 5-)Ling is Bart's **cousin**.  
 6-)Bart is Lisa's **brother**.  
 7-)Marge is Lisa's **mother**.  
 8-)Patty is Bart's **aunt**.  
 9-)Herb is Lisa's **uncle**.  
 10-)Marge, Patty and Selma are **sisters/ siblings**.

\*This diagram has been taken and adapted from the following cite:  
[http://en.islcollective.com/worksheets/worksheet\\_page?id=28447](http://en.islcollective.com/worksheets/worksheet_page?id=28447)

**FUNCTION II: Read the questions and choose the correct option. (15 p.)**

- 1-A: \_\_\_\_\_?  
 B: It is 35, Yalı Street, Afyonkarahisar.  
 a. Where is your address?  
 b. What is Yalı Street?  
**c. What is your address?**  
 d. Is your home on Yalı Street?
- 2-A: Excuse me, \_\_\_\_\_?  
 B: It is between the post office and the cinema.  
 a. where is the post office?  
**b. can you tell me where the shop is?**  
 c. how can I get to the cinema?  
 d. is the post office far?
- 3-A: \_\_\_\_\_?  
 B: She is a doctor.  
 a. Where does she work?  
 b. What is her nationality?  
**c. What does she do?**

- d. What is her work?
- 4-March is my favourite \_\_\_\_\_.  
 a. day  
**b. month**  
 c. year  
 d. season
- 5-A: When is the national match?  
 B: \_\_\_ Saturday.  
**a. on**  
 b. in  
 c. at  
 d. to
- 6-A: Whose is this car?  
 B: It is \_\_\_\_\_.  
 a. Ali  
 b. Alis'  
**c. Ali's**  
 d. Alis
- 7-Do you like \_\_\_\_\_ friends?

- a. meet
- b. meeting**
- c. to meeting
- d. to meet

8-A: \_\_\_\_\_?

B: It is purple.

- a. What is her hair?
- b. What color are her eyes?
- c. What color is her skirt?**
- d. What is her color skirt?

9-Ayşe is good \_\_\_ painting.

- a. in
- b. to
- c. about
- d. at**

10-A: \_\_\_\_\_ cooks at home?

B: My father.

- a. Who**
- b. Whose
- c. What
- d. When

11-What is your favorite room at home?

- a. Kitchen**
- b. Lunch
- c. Florist
- d. Restaurant

12-A: Where were you \_\_\_\_\_?

B. I was at the match with my friends.

- a. tomorrow
- b. now
- c. often
- d. yesterday**

13-She is studying \_\_\_\_\_ she has an exam tomorrow.

- a. and
- b. but
- c. or
- d. because**

14-What is the weather like?

- a. windy
- b. cloudy**
- c. snowy
- d. rainy



15-A: \_\_\_\_\_ are these sandals?

B: They are \$20.

- a. How many
- b. How much**
- c. What
- d. Why

**WRITING :**

**Students' own answers are assessed by two graders in the writing parts.**

**SPEAKING :**

**Students' own performances are assessed by two graders in the speaking parts.**

**APPENDIX 3: General Outcomes of A1.2****A1.2.1**

**Students will be able to...**

**LISTENING**

1. Distinguish words and expressions related to immediate relevance in daily life.
2. Follow the simple, clear basic everyday conversations.
3. Identify clear, basic information in audio or video material.
4. Define the place, person and the topic in the audio material.
5. Identify the sound differences in pronunciation.
6. Recognise clear, basic information in audio or video material.
7. Understand simple, clear, basic telephone conversations in the audio materials.

**SPOKEN INTERACTION**

1. Communicate according to simple everyday relations.
2. Indicate simple statements in areas of immediate need in conversations.
3. Ask questions related to themselves, their family, interests etc.
4. Answer the questions related to themselves, their family, interests etc.
5. Express themselves in simple, clear, basic telephone conversations.

**SPOKEN PRODUCTION**

1. Talk about habits.
2. Describe themselves, their family, daily life, interests, etc.
3. Give a simple description of people, living or working conditions, daily routines.
4. Support his speech with visuals.
5. Ask for information.
6. Answer WH-questions during their speech.
7. Interpret the information given on tables or charts.
8. Answer the questions related to personal information.

**READING**

1. Understand very short, simple texts.
2. Understand short, simple written messages.
3. Read tables and charts.
4. Understand what they read with the help of visual support.
5. Follow short, simple written instructions.
6. Apply short and simple instructions especially if there is visual support.
7. Understand the questions related to the short simpler written material.
8. Guess the content of the written material with the help of the visuals and the title.
9. Look for the answers to the WH-questions in the short, simple texts.
10. Understand the questions including personal information.

## **WRITING**

1. Write simple isolated phrases and sentences.
2. Express their daily needs in written form.
3. Write very short, basic descriptions of themselves and other people.
4. Fill in the forms according to the instructions.
5. Take notes.
6. Write short messages and e-mails.
7. Write short simple postcards
8. Write simple phrases and sentences about themselves and imaginary people, where they live and what they do.
9. Write very simple personal letters.
10. Write sentences and texts by looking at the visuals.
11. Ask basic questions in written form.
12. Answer WH-questions in written forms.
13. Give examples from daily life in written form.
14. Pass on personal details in written form.
15. Use polite expressions in their writing texts.

## **A1.2.2**

### **LISTENING**

1. Understand the listening extract with the help of the familiar words in the recorded text.
2. Follow simple, clear instructions in recorded text.
3. Define the place, person and the topic in the audio material.
4. Define the topic of the short, clear, simple messages and announcements.
5. Distinguish information related to international words, person and place delivered in clear standard speech.
6. Recognise clear, basic information in audio or video material.

### **SPOKEN INTERACTION**

1. Ask simple questions on familiar topics.
2. Answer simple questions addressed to them.
3. Say what they like and dislike.
4. Ask for information on immediate needs.
5. Deliver basic, clear speech consisting information on people, place, time.

### **SPOKEN PRODUCTION**

1. Support his speech with visuals.
2. Identify the problem.
3. Give example from their daily life while they are talking.
4. Express their feelings orally.

### **READING**

1. Distinguish the specific information in simple and clear written messages.
2. Understand high frequency everyday words and expressions in signs and notices .
3. Distinguish the specific information in written material.
4. Read to obtain information.
5. Understand the questions related to the short simpler written material.
6. Look for the answers to the WH-questions in the short, simple texts.
7. Define the problem in written material.
8. Guess the information with help of clues in written text.

### **WRITING**

1. Ask for and pass on personal details in written form.
2. Like exchanging letters.
3. Write short, simple dialogues and texts.
4. Write short paragraphs about likes / dislikes.

5. Complete written information with the help of given contextual clues.
6. Write simple text describing feelings.
7. Use time expressions in their writing texts.
8. Use polite expressions in their writing texts.

### **A1.2.3**

#### **LISTENING**

1. Distinguish the advice and suggestions.
2. Understand short, simple, clear directions.
3. Distinguish the reason result expressions in the recorded text.
4. Distinguish contrasting words in the recorded text.
5. Find a title suitable for the recorded text.

#### **SPOKEN INTERACTION**

1. Communicate to ask for and provide information.
2. Give example from their daily life while they are talking.
3. Express ideas and suggestions.
4. Express wishes and petitions.
5. Express their feelings in a simple way.
6. Use reason result expressions in their speech.
7. Give simple clear directions.

#### **SPOKEN PRODUCTION**

1. Order the topics and events in their speech.
2. Read a very short rehearsed statement e.g. introduce a speaker, propose a toast, etc.
3. Support his speech with visuals.
4. Make comparisons in their speech.

#### **READING**

1. Distinguish the specific information in written material.
2. Read to obtain information.
3. Look for the answers to the WH-questions in the short, simple texts.
4. Define the elements of the story in written text.
5. Define the order of the events in the written text.

#### **WRITING**

1. List the important information in written or recorded text.
2. Complete written information with the help of given contextual clues.
3. Report the events according to the time order.
4. Write about their future plans.
5. Make comparisons in their writing.
6. Use time expressions in their writing texts.
7. Use reason result expressions in their writing texts.

**APPENDIX 4: Student Questionnaire-in English**

This questionnaire aims to determine the perceptions of the students on the efficacy of the coursebook in terms of four skills. When you answer the questions, your very first impressions will be most appreciated. Please try not to spend more than ten minutes or so to respond to all the questions. If you find it necessary to qualify your responses, please feel free to add your comments in open space available. I would appreciate your cooperation very much. Your participation in this study is completely voluntary. Your questionnaire responses will be strictly confidential and data from this research will be reported only in the aggregate. If you have questions at any time about the questionnaire or the procedures, you may send a mail to Doğan DEMİRCİ (dogandemirci@live.com). Thank you very much for your time and support.

<b>Gender</b>	( ) Male	( ) Female
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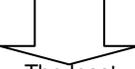
1-Order the four skills (**reading-writing-listening-speaking**) from the most important to the least important in terms of your language needs?

1		The most important  The least important
2		
3		
4		

2-Order the four language skills (**listening, speaking, reading, and writing**) according to the duration that is spent on each of them from the most to the least by your English teacher.

1		The most  The least
2		
3		
4		

3-Order the four language components (**content, vocabulary, grammar, and pronunciation**) according to the duration that is spent on each of them from the most to the least by your English teacher.

1		The most  The least
2		
3		
4		

4-Order the teaching materials (**students' book, work book, supplementary materials, and your own materials**) according to the duration that is spent on each of them from the most to the least by your English teacher.

1		The most  The least
2		
3		
4		

\*Supplementary materials mean additional teaching materials such as games and tasks, excluding CDs that are often attached to students' book.

5-Are you satisfied with your proficiency in English after using *Yes You Can A1.2* in your lessons? Please rate your performance at the end of the term with the scale below between 1 and 5. Tick the appropriate box below.

5	4	3	2	1
Quite well	Fairly well	Cannot tell for sure	Not very well	Not well at all

**YES YOU CAN A1.2-READING**

	<b>Agree</b>	<b>Neutral</b>	<b>Disagree</b>
This book helps us better our ability to read and understand English.			
The activities, tasks, games, etc. are adequate to better our reading skills in English.			
The level of the reading activities is appropriate for us.			
Reading activities appeal to our interest.			

**YES YOU CAN A1.2-WRITING**

	<b>Agree</b>	<b>Neutral</b>	<b>Disagree</b>
This book helps us better our ability to write in English.			
The activities, tasks, games, etc. are adequate to better our writing skills in English.			
Writing activities help us improve our proficiency.			
The level of the writing activities is appropriate for us.			

**YES YOU CAN A1.2-LISTENING**

	<b>Agree</b>	<b>Neutral</b>	<b>Disagree</b>
This book helps us better our ability to listen and understand English.			
The activities, tasks, games, etc. are adequate to better our listening skills in English.			
Listening activities help us improve our proficiency.			
The level of the listening activities is appropriate for us.			
Listening activities appeal to our interest.			

**YES YOU CAN A1.2-SPEAKING**

	<b>Agree</b>	<b>Neutral</b>	<b>Disagree</b>
This book helps us better our ability to speak in English.			
The activities, tasks, games, etc. are adequate to better our speaking skills in English.			
Speaking activities help us improve our proficiency.			
The level of the speaking activities is appropriate for us.			
Speaking activities appeal to our interest.			

**YES YOU CAN A1.2-GRAMMAR**

	<b>Agree</b>	<b>Neutral</b>	<b>Disagree</b>
Grammar in this book is acquired through skills and activities by us.			
This book focuses on fluency rather than accuracy.			
Language areas are embodied in four skills (Listening, Reading, Speaking, and Writing).			
The level of the grammar activities is appropriate for us.			

**YES YOU CAN A1.2-CONTENT**

	Agree	Neutral	Disagree
Contents in this book start with receptive skills (reading, listening) and end with productive skills (speaking, writing).			
The topics in this book attract our attention.			
The activities in this book meet our needs.			

**YES YOU CAN A1.2-IN GENERAL**

	Agree	Neutral	Disagree
This book promotes active learning.			
This book brings up us as independent and proficient users of four skills.			
This book develops our autonomy, gives us responsibility for our own learning.			

**ADDITIONAL COMMENTS:** \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

I think this coursebook is sufficient in terms of teaching four language skills.	Yes ( )	Neutral ( )	No ( )
I think this coursebook is appropriate in terms of teaching four language skills.	Yes ( )	Neutral ( )	No ( )

Order the four language skills (*listening, speaking, reading, and writing*) according to the duration that is spent on each of them from the most to the least by your English teacher in YES YOU CAN A1.2 in your English lessons.

1		The most  The least
2		
3		
4		

**APPENDIX 5: Student Questionnaire-in Turkish**

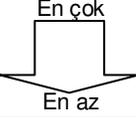
Bu anket ders kitaplarının dört dil becerisi açısından etkililiği hakkında öğrencilerin algılarını belirlemeyi amaçlamaktadır. Soruları cevaplarken, ilk izlenimleriniz benim için oldukça önemlidir. Lütfen soruları cevaplarken 10 dakika veya daha fazla süre harcamamaya gayret ediniz. Eğer cevaplarınızı açıklama ihtiyacı hissederseniz, yorumlarınızı ek düşünceler bölümüne yazma hususunda tereddüt etmeyiniz. Anketime olan katkılarınıza minnettarım. Bu çalışmaya katılım tamamen gönüllülük esasına göredir. Anket sorularına verdiğiniz cevaplar gizli tutulacak ve toplanan veri sadece toplu olarak raporlaştırılacaktır. Eğer anket soruları veya anketin uygulanması hakkında bir sorunuz olursa, Doğan DEMİRCİ ([dogandemirci@live.com](mailto:dogandemirci@live.com))' ye istediğiniz her an mail gönderebilirsiniz. Zamanınızı ayırdığınız ve destekleriniz için çok teşekkür ederim.

Cinsiyet ( ) Bay ( ) Bayan

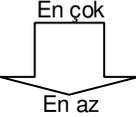
1-Dört dil becerisini (**okuma-yazma-dinleme-konuşma**) sizin kendi dil ihtiyaçlarınızı düşünerek en önemliden en az önemliye göre sıralayınız.

1		En önemli  Az önemli
2		
3		
4		

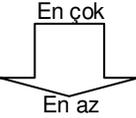
2-Dört dil becerisini (**okuma-yazma-dinleme-konuşma**) sınıfta her birinin öğretimine ayrılan süreye göre en çoktan en aza kadar sıralayınız.

1		
2		
3		
4		

3-Dört dil bileşenini (**içerik-kelime-dil bilgisi-telaffuz**) İngilizce öğretmeninizin her biri için derste ayırdığı zamana göre en çoktan en aza doğru sıralayınız.

1		
2		
3		
4		

4-Öğretim materyallerini (**öğrenci kitabı-alıştırma kitabı-yardımcı materyaller-öğretmeninizin kendi materyalleri**) öğretmeninizin her biri için derste ayırdığı zamana göre en çoktan en aza doğru sıralayınız.

1		
2		
3		
4		

\*Ek materyaller, öğrenci kitabıyla birlikte gelen CD'lerin hariç olduğu oyunlar ve görevler gibi ek öğretim materyallerini içeren gruptur.

5-Derslerinizde *Yes You Can A1.2* kullandıktan sonra, şu anki İngilizce seviyenizden memnun musunuz? Aşağıdaki ölçeği kullanarak dönem sonu performansınızı 1-5 arasında değerlendiriniz. Uygun kutucuğa ✓ koyunuz.

5	4	3	2	1
Oldukça iyi	İyi	Emin değilim	Çok iyi değil	İyi değil

#### YES YOU CAN A1.2-OKUMA

	Katılıyorum	Nötr	Katılmıyorum
Bu kitap İngilizce okuma ve okuduğumuzu anlama becerilerimizi geliştirmemize yardım ediyor.			
Kitaptaki aktiviteler, görevler, oyunlar, vs. İngilizcedeki okuma becerilerimizi geliştirme konusunda yeterlidir.			
Okuma aktivitelerinin seviyesi seviyemize uygundur.			
Okuma aktiviteleri ilğimizi çekiyor.			

#### YES YOU CAN A1.2-YAZMA

	Katılıyorum	Nötr	Katılmıyorum
Bu kitap İngilizce yazma becerilerimizi geliştirmemize yardım ediyor.			
Kitaptaki aktiviteler, görevler, oyunlar, vs. İngilizcedeki yazma becerilerimizi geliştirme konusunda yeterlidir.			
Yazma aktiviteleri yeterliliğimizi geliştirmeye yardım ediyor.			
Yazma aktivitelerinin seviyesi seviyemize uygundur.			

**YES YOU CAN A1.2-DİNLEME**

	Katılıyorum	Nötr	Katılmıyorum
Bu kitap İngilizce dinleme ve dinlediğimizi anlama becerilerimizi geliştirmemize yardım ediyor.			
Kitaptaki aktiviteler, görevler, oyunlar, vs. İngilizcedeki dinleme becerilerimizi geliştirme konusunda yeterlidir.			
Dinleme aktiviteleri yeterliliğimizi geliştirmeye yardım ediyor.			
Dinleme aktivitelerinin seviyesi seviyemize uygundur.			
Dinleme aktiviteleri ilğimizi çekiyor.			

**YES YOU CAN A1.2-KONUŞMA**

	Katılıyorum	Nötr	Katılmıyorum
Bu kitap İngilizce konuşma becerilerimizi geliştirmemize yardım ediyor.			
Kitaptaki aktiviteler, görevler, oyunlar, vs. İngilizcedeki konuşma becerilerimizi geliştirme konusunda yeterlidir.			
Konuşma aktiviteleri yeterliliğimizi geliştirmeye yardım ediyor.			
Konuşma aktivitelerinin seviyesi seviyemize uygundur.			
Konuşma aktiviteleri ilğimizi çekiyor.			

**YES YOU CAN A1.2-DİL BİLGİSİ**

	Katılıyorum	Nötr	Katılmıyorum
Bu kitaptaki dil bilgisi beceriler ve aktiviteler yoluyla ediniliyor.			
Bu kitap dili doğru kullanmaktan öte dili akıcı kullanmaya odaklanmaktadır.			
Dil alanları 4 dil becerisi (Dinleme, okuma, konuşma, yazma) içerisinde düzenlenmiştir.			
Dil bilgisi aktivitelerinin seviyesi bizim için uygundur.			

**YES YOU CAN A1.2-İÇERİK**

	Katılıyorum	Nötr	Katılmıyorum
Bu kitabın içeriği algısal beceriler (okuma, yazma) ile başlayıp, üretimsel beceriler (konuşma, yazma) ile bitiyor.			
Bu kitaptaki konular ilğimizi çekiyor.			
Bu kitaptaki aktiviteler ihtiyaçlarımıza cevap veriyor.			

**YES YOU CAN A1.2-GENEL OLARAK**

	Katılıyorum	Nötr	Katılmıyorum
Bu kitap aktif öğrenmeyi geliştiriyor.			
Bu kitap bizim bir birey olarak dildeki dört becerinin bağımsız ve usta kullanıcıları olarak gelişmemize katkıda bulunuyor.			
Bu kitap özerkliğimizi geliştiriyor ve bize kendi öğrenmelerimizin sorumluluğunu veriyor.			

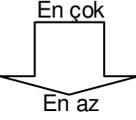
**EK DÜŞÜNCELER:** \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Bu ders kitabı dört dil becerisini ( <b>okuma-yazma-dinleme-konuşma</b> ) öğretme açısından yeterlidir.	Evet ( )	Nötr ( )	Hayır ( )
Bu ders kitabı dört dil becerisini (okuma-yazma-dinleme-konuşma) açısından uygun bir ders kitabıdır.	Evet ( )	Nötr ( )	Hayır ( )

🚩 **YES YOU CAN A1.2**'yi derste kullanırken, *dört dil becerisine (okuma-yazma-dinleme-konuşma)* derste ayırdığı zamana göre en çoktan en aza doğru bu becerileri sıralayınız.

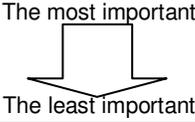
1		
2		
3		
4		

## APPENDIX 6: Teacher Questionnaire

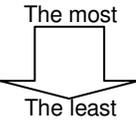
This questionnaire aims to determine the perceptions of the teachers on the efficacy of the coursebook in terms of four skills. When you answer the questions, your very first impressions will be most appreciated. Please try not to spend more than ten minutes or so to respond to all the questions. If you find it necessary to qualify your responses, please feel free to add your comments in open space available. I would appreciate your cooperation very much. Your participation in this study is completely voluntary. Your questionnaire responses will be strictly confidential and data from this research will be reported only in the aggregate. If you have questions at any time about the questionnaire or the procedures, you may send a mail to Doğan DEMİRCİ ([dogandemirci@live.com](mailto:dogandemirci@live.com)), MA student at Gazi University. Thank you very much for your time and support.

<b>Gender</b>	( ) Male	( ) Female
<b>How long have you been teaching English?</b>	( ) years	

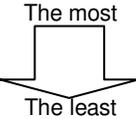
1-Order the four skills (**reading-writing-listening-speaking**) from the most important to the least important in terms of students' needs?

1		
2		
3		
4		

2-Order the four language skills (**listening, speaking, reading, and writing**) according to the duration that you spend on each of them from the most to the least in your English lessons.

1		
2		
3		
4		

3-Order the four language components (**content, vocabulary, grammar, and pronunciation**) according to the duration that you spend on each of them from the most to the least in your English lessons.

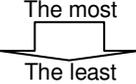
1		
2		
3		
4		

4-Order the teaching materials (**students' book**, **work book**, **supplementary materials**, and **your own materials**) according to the duration that you spend on each of them from the most to the least in your English lessons.

1		The most  The least
2		
3		
4		

\*Supplementary materials mean additional teaching materials such as games and tasks, excluding CDs that are often attached to students' book.

5-While you are getting prepared for your English lessons in advance, how much do you benefit from **the National Core Curriculum**, **the teacher's book**, and **your own ideas** and experience respectively? Order them from the most to the least.

1		The most  The least
2		
3		

6-Are you satisfied with your learners' proficiency in English after using *Yes You Can A1.2* in your lessons? Please rate your learners' performance at the end of the term with the scale below between 1 and 5. Tick the appropriate box below.

5	4	3	2	1
Quite well	Fairly well	Cannot tell for sure	Not very well	Not well at all

**WHILE TEACHING ENGLISH**

	Agree	Neutral	Disagree
Teachers should focus on teaching grammar.			
I provide opportunities for students to make students use of English through meaningful tasks and activities.			
I speak English in the classroom.			
Exams should be based on the four skills. (reading, writing, listening, speaking)			
Teaching grammar is more important than teaching the four skills.			
Form is more important than usage while teaching grammar.			
Structures can be neglected while teaching grammar. Instead, usage should be emphasized.			
I neglect reading in exams.			
I neglect writing in exams.			
I neglect listening in exams.			
I neglect speaking in exams.			

**YES YOU CAN A1.2-READING**

	Agree	Neutral	Disagree
This book helps students better their ability to read and understand English.			
The activities, tasks, games, etc. are adequate to better the learners' reading skills in English.			
The level of the reading activities is appropriate for the learners.			
Reading activities appeal to the learners' interest.			

**YES YOU CAN A1.2-WRITING**

	<b>Agree</b>	<b>Neutral</b>	<b>Disagree</b>
This book helps students better their ability to write in English.			
The activities, tasks, games, etc. are adequate to better the learners' writing skills in English.			
Writing activities help students improve their proficiency.			
The level of the writing activities is appropriate for the learners.			

**YES YOU CAN A1.2-LISTENING**

	<b>Agree</b>	<b>Neutral</b>	<b>Disagree</b>
This book helps students better their ability to listen and understand English.			
The activities, tasks, games, etc. are adequate to better the learners' listening skills in English.			
Listening activities help students improve their proficiency.			
The level of the listening activities is appropriate for the learners.			
Listening activities appeal to the learners' interest.			

**YES YOU CAN A1.2-SPEAKING**

	<b>Agree</b>	<b>Neutral</b>	<b>Disagree</b>
This book helps students better their ability to speak in English.			
The activities, tasks, games, etc. are adequate to better the learners' speaking skills in English.			
Speaking activities help students improve their proficiency.			
The level of the speaking activities is appropriate for the learners.			
Speaking activities appeal to the learners' interest.			

**YES YOU CAN A1.2-GRAMMAR**

	<b>Agree</b>	<b>Neutral</b>	<b>Disagree</b>
Grammar in this book is acquired through skills and activities by the students.			
This book focuses on fluency rather than accuracy.			
Language areas are embodied in four skills (Listening, Reading, Speaking, and Writing).			
The level of the grammar activities is appropriate for the learners.			

**YES YOU CAN A1.2-CONTENT**

	<b>Agree</b>	<b>Neutral</b>	<b>Disagree</b>
Contents in this book start with receptive skills (reading, listening) and end with productive skills (speaking, writing).			
The topics in this book attract students' attention.			
The activities in this book meet students' needs.			

**YES YOU CAN A1.2-IN GENERAL**

	<b>Agree</b>	<b>Neutral</b>	<b>Disagree</b>
This book promotes active learning.			
This book brings up students as independent and proficient users of four skills.			
This book develops students' autonomy, gives them responsibility for their own learning.			

**ADDITIONAL COMMENTS:** \_\_\_\_\_  
 \_\_\_\_\_

I think this coursebook is sufficient in terms of teaching four language skills.	Yes ( )	Neutral ( )	No ( )
I think this coursebook is appropriate in terms of teaching four language skills.	Yes ( )	Neutral ( )	No ( )

**Order the four language skills (listening, speaking, reading, and writing) according to the duration that you spend on each of them from the most to the least in YES YOU CAN A1.2 in your English lessons.**

<b>1</b>		The most  The least
<b>2</b>		
<b>3</b>		

*Full Length Research Paper*

# The mediation effect of school satisfaction in the relationship between teacher support, positive affect and life satisfaction in adolescents

Bülent Baki Telef<sup>1\*</sup>, Gökmen Arslan<sup>2</sup>, Abdullah Mert<sup>3</sup> and Sezai Kalafat<sup>4</sup>

<sup>1</sup>Çanakkale Onsekiz Mart University/Turkey.

<sup>2</sup>Süleyman Demirel University/Turkey.

<sup>3</sup>Ministry of National Education/Turkey.

<sup>4</sup>Bülent Ecevit University/Turkey.

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The aim of this study is to examine the relationships among teacher support, positive emotions, school satisfaction and life satisfaction in adolescences. The study had the participation of 344 adolescents from different socio-economic levels studying in the sixth, seventh and eighth grades of three public middle schools in the province of Çanakkale. The study population consisted of 173 (50.3%) girls and 171 (49.7%) boys. The data from the study were collected with the School Climate Inventory, Scale of Positive and Negative Experiences, Overall School Satisfaction Scale for Children, and Satisfaction with Life Scale. The results of structural equation modeling analysis showed that the good fit indexes of the model are at acceptable levels. Teacher support and positive emotions predict life satisfaction both directly and indirectly through school satisfaction. It was observed that school satisfaction is a mediating variable between teacher support and positive emotions with respect to life satisfaction. It can be said that teacher support and positive emotions are important factors in terms of school satisfaction and life satisfaction in adolescents.

**Key words:** Adolescence, positive emotions, teacher support, school satisfaction, life satisfaction.

## INTRODUCTION

Life satisfaction is defined as a person's cognitive assessment of quality or positivity within overall or specific domains (family, school, environment, etc.) of life (Haranin et al., 2007). According to Suldo and Huebner (2004), life satisfaction may serve as a significant psychological strength for adolescents. The identification of factors affecting life satisfaction is important for the

psychological development and adaptation of adolescents (Çivitci, 2009). Gilman and Huebner (2006) suggested that adolescents with high life satisfaction experience have fewer problems in the personal, interpersonal and academic domains. Adolescents with high life satisfaction are more likely to have positive beliefs regarding the management of negative emotions, better social

\*Corresponding author. E-mail: bakitelef@gmail.com.

performance and academic success (Antaramian et al., 2008).

School satisfaction is considered to be major aspect of overall life satisfaction (Verkuyten and Thijs, 2002; Karatzias et al., 2013). School satisfaction involves the subjective and cognitive assessment of perceived quality of school life (Baker et al., 2003). School satisfaction can facilitate the development of behaviors in adolescents that require responsibility by affecting not only doing good things but also active participation in the learning process within school (Elmore and Huebner, 2010). High school satisfaction is more likely to lead to the motivation for learning (Samdal et al., 1999). Adolescents who feel good about themselves and achieve satisfaction at school are less prone to behavioral problems (Engels et al., 2004; DeSantis-King et al., 2006).

### Teacher Support, School and Life Satisfaction

Good relationships among teachers and students will not only encourage the efficient transfer of information but can also serve as a channel of emotional support for the students (Kim and Kim, 2013). Supportive and nurturing teacher behaviors, regardless of students' academic orientation or status, can provide the fundamental trust for learning and development in students (Jiang et al., 2013). Teacher support, as being a formative figure of students' achievements and developmental steps, helps students to recognize their capacity for learning and develop what they want. This support delivers cognitive information to students as learners, so they can use it to judge their own abilities (DeSantis King et al., 2006).

Social support of teachers, in the emotional and practical sense, has a significant impact on students' school satisfaction (Samdal et al., 1998). Review of the literature shows that teacher support has a positive relationship with school satisfaction (Casas et al., 2013; DeSantis King et al., 2009; Ferguson et al., 2010; Samdal et al., 1998; Özdemir and Sezgin, 2011; Tian et al., 2013; Wentzel, 1998; Vieno et al., 2004; Zullig et al., 2011). Supportive, improvement-oriented teachers enhance the capacities of students concerning their school lives by allowing them to enjoy their learning experiences, encouraging them to strive to be successful and providing them with information. Nevertheless, indifferent or punitive teachers can create a negative environment in school. Therefore, teachers are an important piece of the puzzle, particularly in regard to their consideration of how students would achieve satisfaction in school (DeSantis-King et al., 2009). It is important to establish a school environment that supports and organizes the relationship between the teacher and the student, and where the students perceive school to be a safe place. The creation of such a school environment would improve students'

educational experiences while boosting their health and well-being (Samdal et al., 1998). In the studies, a positive relationship between teacher support and the life satisfaction of adolescents was found (Danielsen, 2010; Suldo et al., 2009; Ferguson et al., 2010; Özdemir and Koruklu, 2013).

### Positive Emotions, School and Life Satisfaction

Positive affects are among the emotional sub-dimensions of subjective well-being. Positive affects enable positive school functions to be increased by enhancing interpersonal interactions, coping with academic activities, flexibility and responsibility, school-related practices (Lewis et al., 2009). Positive affects protect adolescents from risky behaviors and dropping out of school (Telef, 2014a).

Positive relationships were found among positive affects and teacher-student relationships, control, attention, peer and family support in learning, future needs and goals, the obtainment of social support, problem-solving and self-confidence (Reschly et al., 2008).

Based on the studies, positive affects and school satisfaction were found to be positively correlated (Bordwine and Huebner, 2010; Huebner and McCullough, 2000; Karatzias et al., 2002; Lewis et al., 2009; Tian et al., 2013). In contrast to this situation, stressful school life (Baker, 1998; Vieno et al., 2004) and affective disorders (Jovanović and Jerković, 2011) reduce school satisfaction. Positive affects increase the likelihood that a person will feel much better in the present and the future (Fredrickson, 2004). Positive affects are the source of strong development and change, that they are predictors of a person's judgment on the life and skills possessed by people as means to achieve a better life (Cohn et al., 2009). It was found that adolescents who experience high positive affects have high life satisfaction (Garcia and Siddiqui, 2009; Rose, 2008; Froh et al., 2009; Telef, 2013; Veronese et al., 2012).

Consequently, studies reported in the literature support the conclusion that teacher support, positive affects, school satisfaction and life satisfaction are closely related as concepts. Therefore, in this study the mediation effect of school satisfaction in the relationship between teacher support and positive affects with respect to life satisfaction was examined through structural equation modeling. With reference to the studies reported in the literature, the following hypotheses based on the theoretical model were tested (Figure 1):

H<sub>1</sub>: Teacher support has a direct effect on school satisfaction.

H<sub>2</sub>: Positive affects have a direct effect on school satisfaction.

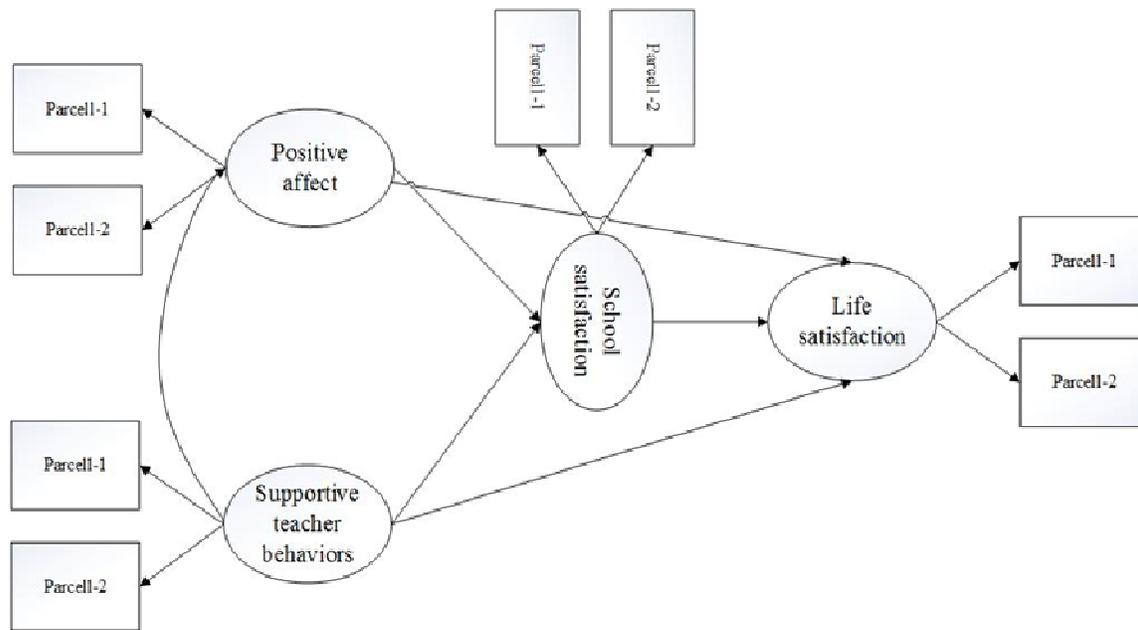


Figure 1. The hypothesized model.

H<sub>3</sub>: School satisfaction has a direct effect on a student's life satisfaction.

H<sub>4</sub>: Teacher support has a direct effect on a student's life satisfaction.

H<sub>5</sub>: Positive affect has a direct effect on a student's life satisfaction.

H<sub>6</sub>: Teacher support indirectly affects the student's life satisfaction through school satisfaction.

H<sub>7</sub>: Positive affect indirectly affects the student's life satisfaction through school satisfaction.

## METHOD

### Participants

This research is based on the relational screening model. Relational screening model is a research model that aims at determining the existence and degree of the change between two and more variables (Karasar, 2005). Participants of the research were selected from the 6, 7 and 8<sup>th</sup> grades of three secondary schools located in the center of Çanakkale with the random sampling method. For the implementation, permissions were obtained from firstly the ethics committee of Çanakkale Onsekiz Mart University and then the Provincial Directorate of National Education. Parents were informed and their approvals were taken for the implementation through the school managers. Students were informed before the implementation and voluntary participation was remarked. Implementations of the scales were conducted in course hours and collectively. Students had 25-30 s to complete the survey. A total of 344 adolescents participated in the study.

Of the study population, 173 participants (50.3%) were girls and 171 (49.7%) were boys. Of those students, 74 (21.5%) were in sixth grade, 209 (60.8%) were in seventh grade and 61 (17.7%) were in

eighth grade. The participants ranged from 11 to 15 years of age. The mean age was 12.75 and the standard deviation was .87.

## Measures

### Satisfaction with life scale

The Satisfaction with Life Scale, developed by Diener et al. (1985), was adapted into Turkish by Köker (1991). The scale consists of five items, and the items are evaluated between 1 (strongly disagree) and 7 (strongly agree). Scores received from the scale range from 5 to 35. The low score obtained from the scale is considered to be an indication of low life satisfaction. The scale includes items like "I am pleased with my life". In the validity and reliability studies with adolescents conducted by Köker (1991), it was determined that the scale's test-retest reliability coefficient applied to the three-week interval was  $r = .85$ , and the item-test correlation was between  $r = .71$  to  $r = .80$ . Cronbach's alpha internal consistency coefficient was found to be  $(\alpha) .76$ .

### Overall school satisfaction scale for children

The Overall School Satisfaction Scale for Children was developed by Randolph and colleagues (2009; 2010) to measure the comprehensive school satisfaction of primary-school students. It is a one-dimensional scale comprising six items. Each item in the scale is scored from 1 to 5. The scale includes items like "I like going to school". A score between 6 and 30 is obtained from the scale. High scores indicate high school satisfaction and learning in school. The work of adapting the scale into Turkish was performed by Telef (2014b) with 582 primary-school and middle-school students from the third through eighth grades. As a result of exploratory factor analysis, as was found in the original, the scale consisted of one factor, and the total variance was calculated to be

65%. The factor loading of the scale items was calculated as .77 to .82. Goodness of fit values in the confirmatory factor analysis were found to be RMSEA = 0.06, SRMR = 0.01, GFI = 0.98, NFI = 0.99, RFI = 0.98, CFI = 0.99 and IFI = 0.99. Cronbach's alpha internal consistency coefficient obtained from the reliability study of the scale was found to be .89.

### School Climate Scale (SCS)

The scale developed by Çalık and Kurt (2010) consists of 22 items prepared in the form of five-point Likert-type rating. The rating scale was formed from "never=1" to "always=5." The scale has three factors, including (1) supportive teacher behaviors, (2) achievement orientation, and (3) a safe learning environment and positive peer interaction. The subdimension of the scale, which constitutes the supportive teacher behaviors, consists of items such as "our teachers make the classroom environment enjoyable". According to the results of the original validity and reliability studies of the scale, the factor-loading values of the items in the three-factor structure ranged from .45 to .85, and the total variance was 45%. The internal consistency coefficients calculated to determine the reliability level of the scores obtained from the factors ranged from .77 to .85. In this study, the supportive teacher behaviors subdimension of the scale was used.

### Scale of positive and negative experiences

The Scale of Positive and Negative Experiences is a short scale that was developed by Diener et al. (2010) in order to measure positive affects, negative affects and well-being. The Turkish adaptation of the scale was performed by Telef (2011, 2015; 2013). As a result of confirmatory factor analysis, the goodness of fit indexes of the scale were found to be RMSEA = 0.04, SRMR = 0.03, GFI = 0.96, NFI = 0.97, RFI = 0.96, CFI = 0.99 and IFI = 0.99. Cronbach's alpha coefficient obtained from the reliability study of the scale was found to be .84 for positive experience dimension and .75 for negative experience dimension. Each item in the Scale of Positive and Negative Experiences is scored in the range from 1 to 5 and expressed in the form of 1 (very rarely or never) to 5 (very often or always). Given the fact that the scale measures the independent or two different types of feelings, they are scored separately. The sum of positive and negative scores ranges from 6 to 30. Items that measure the positive experiences include feelings like "happy and pleased". In the study, the positive experience subscale was used to measure the positive emotions.

### Demographic information

The Personal Information Form was prepared by the researchers to gather demographic information regarding the students. Personal information of students such as gender, grade and age is found in the form.

### Analyses

Analysis was organized in two steps. In first step, descriptive statistics and Pearson correlation coefficients were examined by using SPSS 22. Multivariate assumptions were also checked including normality, missing values, and outlier values. In second step, structural equation modeling was used to measure direct and

indirect relationship between variables by using AMOS 22.  $\chi^2$  (Chi-Squared statistics),  $\chi^2/df$  (degree of freedom), RMSEA (Root Mean Square Error of Approximation), SRMR (Standardized Root Mean Square), GFI (Goodness of Fit Index), CFI (Comparative Fit Index), NFI (Normed Fit Index), and RFI (Relative Fit Index) were used to assess the model fit. For CFI, GFI, NFI, RFI, .90 and higher value show acceptable fit, and  $\chi^2/df < .03$  is accepted a good fit. Finally less than .05 of RMSEA and SRMR indicate a good fit (Kline, 2011; Şimşek, 2007).

## RESULTS

Before the structural equation analysis, we examined descriptive statistics and Pearson correlation for relationships between variables. Result of descriptive statistics and correlation are presented in Table 1.

As seen in Table 1, results indicated that life satisfaction positively correlated with supportive teacher behaviors, school satisfaction, and positive affect in adolescents. For examining the mediation role of school satisfaction in relationship between supportive teacher behaviors-life satisfaction and positive affect-life satisfaction, structural equation modeling (SEM) was used. Latent constructs were defined to using parcel method, and two parcels were determined for each latent variable.

In structural equation, standardized regression coefficients indicated that positive affect ( $\beta = .21, p < .05$ ) and supportive teacher behaviors ( $\beta = .32, p < .001$ ) directly predicted school satisfaction. School satisfaction predicted life satisfaction ( $\beta = .25, p < .001$ ) significantly. Analysis results also showed that positive affect ( $\beta = .19, p < .05$ ) and supportive teacher behaviors ( $\beta = .28, p < .001$ ) indirectly predicted life satisfaction via school satisfaction. In other words, school satisfaction partially mediated in relationship between supportive teacher behaviors - life satisfaction and positive affect- life satisfaction. Positive affect and supportive teacher behaviors accounted for 24% of variance in school satisfaction, and positive affect supportive teacher behaviors and school satisfaction accounted for 35% of variance in life satisfaction in structural model (Figure 2).

## DISCUSSION

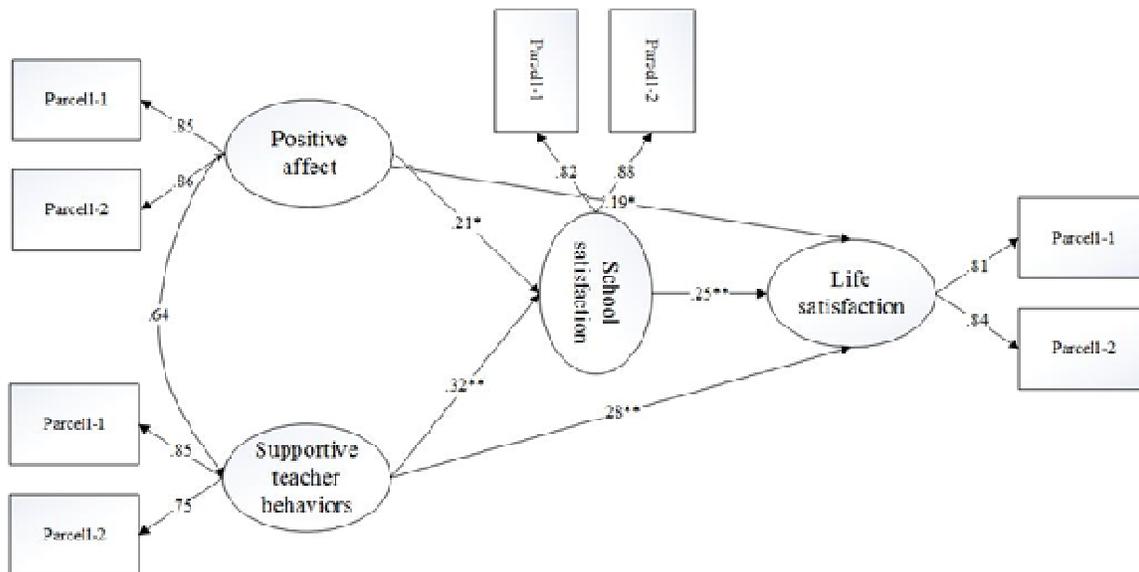
This study tested the mediation role of school satisfaction in the relationships between supportive teacher behaviors and positive affects with respect to life satisfaction in adolescents. The results of structural equation modeling showed that supportive teacher behaviors and positive affects predict life satisfaction both directly and indirectly through school satisfaction.

Supportive teacher behavior was observed to be an important predictor of school satisfaction. This finding is consistent with the results in the literature, which indicate

**Table 1.** Descriptive statistics and correlation values for variables.

	1	2	3	4	5	6	7	8	9	10	11	12
PE	1											
SS	.347**	1										
LS	.396**	.374**	1									
STB	.510**	.386**	.418**	1								
STB1	.513**	.350**	.391**	.892**	1							
STB2	.417**	.350**	.366**	.917**	.636**	1						
PE1	.923**	.347**	.361**	.460**	.475**	.365**	1					
PE2	.937**	.301**	.375**	.488**	.478**	.409**	.730**	1				
SS1	.360**	.934**	.374**	.335**	.289**	.316**	.351**	.320**	1			
SS2	.284**	.927**	.321**	.385**	.364**	.335**	.294**	.238**	.731**	1		
LS1	.331**	.372**	.861**	.363**	.357**	.304**	.295**	.319**	.350**	.341**	1	
LS2	.385**	.331**	.959**	.398**	.364**	.357**	.355**	.361**	.343**	.272**	.681**	1
M	23.47	23.80	28.36	28.20	14.61	13.59	11.46	12.00	11.70	12.10	11.89	16.46
SD	4.826	5.307	6.277	7.052	3.654	4.139	2.470	2.718	2.920	2.784	2.434	4.360

Note: N= 344, \*\*p<.001, OY positive affect; DOD supportive teacher behaviors; OD school satisfaction; YD life satisfaction, OD1, OD2, OY1, OY2, DOD1, DOD2, YD1, YD2 define parcels for latent constructs.



**Figure 2.** Structural model regarding standardized estimates. Note: N= 344, \*p<.05, \*\*p<.001.

that support received from teachers is relevant to the student's school satisfaction (Casas et al., 2013; DeSantis King et al., 2009; Ferguson, Kasser and Jahng, 2010; DeSantis-King et al., 2006; Samdal et al., 1998; Özdemir and Sezgin, 2011; Tian et al., 2013; Vieno et al., 2004; Wentzel, 1998; Zullig, Huebner and Patton, 2011). Good relationships between teachers and students contribute to the school satisfaction of students in a unique way (Jiang, Huebner and Siddall, 2013; Kim and

Kim, 2013). As support from teacher increases, so does school satisfaction (DeSantis-King et al., 2006).

According to Suldo et al. (2004), supporting relationships lead to a positive school climate that enables students to evaluate their school experiences positively. The support received from one or multiple teachers increases the feeling of connection to school in adolescents. Therefore, this situation causes them to assess their school satisfaction as being positive and to

show fewer behavioral problems (DeSantis-King et al., 2006).

Supportive teacher behavior can significantly predict the life satisfaction of adolescents. Numerous studies have asserted that support from the teacher is an important factor in the adolescent's life satisfaction (Danielsen, 2010; Ferguson et al., 2010; Suldo et al., 2009; Özdemir and Koruklu, 2013; Vieno et al., 2004). The meta-analysis study conducted by Chu et al. (2010) found that support obtained from teachers and school personnel is associated with the well-being of adolescents. According to Suldo et al. (2009), emotional and mediational support from teachers is important in the well-being of students. Teacher support serves as a form of protection against the vulnerability that increases in the situations where well-being decreases in adolescents (Reddy et al., 2003). Support from the teacher may help the student cope with the demands of school and help him or her avoid problems such as life dissatisfaction and subjective health complaints (Ravens-Sieberer et al., 2009). The role of the teacher and learning environment are critically important in terms of improving well-being in school (Løhre et al., 2010). According to Samdal et al. (1998), it is fundamental to establish a school environment that supports and organizes the relationship between teachers and students, and where the students perceive the environment to be safe. The creation of such a school environment will improve students' educational experiences and enhance their health and well-being. According to Döş (2013), in a happy school environment the teachers are close to students, listen to their problems, treat them warmly and help them to solve their problems.

Positive affects have been recognized as significant predictors of school satisfaction. The positive relationship between positive affects and school satisfaction is supported by previous research results (Bordwine and Huebner, 2010; Huebner and McCullough, 2000; Karatzias et al., 2002; Lewis et al., 2009; Tian et al., 2013). According to Lewis et al. (2009), positive affects significantly aid the understanding of students' compatibility-oriented school behaviors. Positive affects were found to be positively associated with adolescents' life satisfaction. This finding is consistent with research results indicating that, as positive affects increase life satisfaction also increases (Froh et al., 2009; Rose, 2008; Telef, 2013; Veronese et al., 2012). It was pointed out that positive affects and experiences can be used as tools for the development of life satisfaction in adolescents (Rose, 2008). Positive emotions, as compared to negative emotions, play a key role in a person's overall life satisfaction by enabling the individual to enjoy more (Veronese et al., 2012). As for adolescents who often have been exposed to negative experiences, they gradually lose their perception of control over their lives,

and this situation leads to a decrease in life satisfaction (Ash and Huebner, 2001).

As is the case with previous studies (DeSantis et al., 2009), it was observed that school satisfaction is an intermediary variable between supportive teacher behaviors and life satisfaction. This is consistent with the previous literature reporting that high school satisfaction is associated with high life satisfaction (Ash and Huebner, 1998; Huebner and Gilman, 2006; McGrath et al., 2009; Park and Huebner, 2005; Telef, 2014b). Supportive teacher behaviors and positive affects encourage the increase of school satisfaction in adolescents. It can be stated that this situation conduces them to enjoy life more. Intervention strategies intended to deal with stress or reduce it, and to improve personal relationships in school, can prevent diseases while promoting general well-being and health (Natvig et al., 2003). Efforts which will be made by the educators to develop the teacher-student relationships, increase the teacher support and create a positive school climate can enable the students to be satisfied with both the school and their lives.

There are some limitations in this study. First, the research data was collected from students at just three middle schools in the province of Çanakkale. The research can be repeated with samples from larger and different age groups to increase the generalizability of the findings. In the research, factors such as gender and socio-economic status weren't included in the model. In further researches, demographic variables can be added to the model and relationships can be tested. Research data were collected on the basis of self-report method. In future studies, mixed studies can be conducted using both quantitative and qualitative methods. The findings obtained as a result of this research may contribute to the comprehension of the adolescents' well-beings.

## Conflict of Interests

The authors have not declared any conflict of interests.

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*Full Length Research Paper*

## Developing strategic leadership for administrators: Private vocational college study

Areeya Jumnongya<sup>1</sup>, Chaiyuth Sirisuthi<sup>2</sup> and Pacharawit Chansirisira<sup>2</sup>

<sup>1</sup>Educational Administration and Development, Faculty of Education, Mahasarakham University, Thailand.

<sup>2</sup> Faculty of Education, Mahasarakham University, Thailand.

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**The purpose of this study is to study and define a number of factors measuring quality and efficiency in administrators of private vocational college, and to test and evaluate the efficiency of the strategic leadership program. Twelve factors and 83 indicators were identified as vital for strategic leadership for private vocational college administrators. These factors and indicators were employed to develop strategic leadership program and then implement with 35 administrators. It is found that the feasibility/suitability/compliance of five elements; morals, ethics, team-work, analytic technique for transformation of leadership and determining the strategic direction can promote administrators in strategic leadership at high level.**

**Key words:** Strategic leadership, indicators, private vocation, administrator, leadership.

### INTRODUCTION

Today's leaders and executives need to have the ability to handle changes in the face of rapid globalization in a successful way. This is especially important in the fields of knowledge, technology and management. Thus, in order to make major decision top management executives need not only to have adequate knowledge but also the skills to apply the knowledge in a manner that successfully propels their organizations to achieve their goals. Under this intensely competitive and rapidly changing social on text, Strategic management is an innovative alternative for the management of an organization.

The main features of strategic management are leadership vision and thinking that includes both theoretical and practical aspects. An important feature is

executive leadership training on how to create and develop a team to support the effective management by the process of learning and practising (Field et al., 2000). In the private vocational sector such a team would be responsible for the management of each institution (Hoy and Miskel, 1987). This requires strategic leadership of the entire education process, especially as changes and competition intensify even more in the future.

The roles and behaviors of effective top managers differ considerably from those of middle managers (Norburn, 1989). In most prior research, scholars have looked almost exclusively at small group leadership and made it applicable to middle and lower managerial levels (Bass, 1990; Yukl, 1994), but theories that describe the dyadic relationship between supervisors and their

\*Corresponding author. E-mail: areya123456@gmail.com

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followers ought not be stretched upward. One branch of leadership research that has, however, proven useful to the study of CEO-level management is Bass's (1985, 1990) framework of transactional/transformational leadership. Bass's framework was developed within larger organizational contexts (Burns, 1978), and it has been successfully applied to the study of top-level managers (Lowe et al., 1996). Cannella and Monroe (1997) indicate that, together with advances in personality theory, transformational leadership and visionary leadership theories can contribute to a more realistic view of top management.

In this study, we are particularly interested in the strategic leadership for private vocational education. In order to achieve such a strategic leadership for private vocational education, a program for leadership development in private vocational education is needed. The study aims to study and define the elements and indicators of strategic leadership in private vocational education, to develop a program for college administrators to implement and execute strategic leadership, and to evaluate the implementation of the development program.

**The purpose of the study**

1. To study and define the elements and indicators of strategic leadership for private vocational education.
2. To develop and evaluate a program for college administrators to implement and execute strategic leadership for private vocational education.

**METHODOLOGY**

**Procedure**

The researchers have studied the theory and research related to strategic leadership by reviewing and analysing the concepts and theories about strategic leadership (Miller and Dess, 1980; Dubrin, 2007; Ireland and Hitt, 2007; Bass and Bass, 2006; Fullan and St. Germain, 2007), and also study based on concept defining 10 primary elements of strategic leadership. The composition and research procedures were divided into 3 phases as follows:

Phase 1: Study of elements and metrics for strategic management. First, analysis and synthesis of key elements using documented theoretical concepts relevant to the program of study. Five experts were interviewed about elements and additional indicators. Second, confirming the elements and indicators of strategic leadership by using a focus group consisting of 12 experts. Third, 361 private vocational college administrators were interviewed.

Phase 2: Develop a program for leadership development. This phase consists of two steps: drafting a program based on the study of elements and metrics for management as it follows the previous phase and then synthesis theory and related research. Determining

the suitability of leadership development program is employed 9 strategic experts for clarifying components.

Phase 3: Implement and test the program for strategic leadership for private vocational education. This phase consists of two steps : pilot programs to develop strategic leadership for the 20 private college administrators and then evaluate the programs by collecting data from 35 administrators.

**Research instruments**

Research instruments used in this study consist of structured interviews. The experts interviewed five people who work or used to work for the education on the use of strategic leadership in private vocational colleges to verify the performance and indicators of the educational theories. Then, focus group was employed for the study which consists of 12 experts. The instrument is developed with 83 items with reliability of 0.98. Evaluation of the suitability of the SLPVA was made by 9 luminaries and evaluating 52 items. Evaluation of the adoption success was measured 90 days after implementation. The evaluation was divided in 83 items. Researchers analysed the collected data using basic statistics such as percentage, mean and standard deviation to study the feasibility of the query and analyse the appropriateness of the SLPVA.

**Data analysis**

Researchers analysed the collected data using basic statistics such as percentage, mean and standard deviation (S.D.) to study the feasibility of the query and analyse the appropriateness of the SLPVA. The feasibility/suitability/compliance of the program was quantified by applying an interpretation as follows:

4:51 to 5:00	represent	highest	level
3:51 to 4:50	represents	high	level
2:51 to 3:50	represents	moderate	level
1:51 to 2:50	represents	low	level
1:00 to 1:50	represents	lowest	level

**FINDINGS**

***Elements and indicators of strategic leadership***

The evaluation made by 361 sample private vocational college administrators concluded that implementation is possible at an overall high level. A total of 5 factors were found to have the highest level of feasibility/suitability/compliance, and 7 factors were found to have the high level. It was concluded that the most important factor was morals, ethics and values, and the most important indicators were 1) to introduce and 2) to advise the staff, 3) ethics and 4) to clarify delegation responsibility.

Program for development of strategic leadership in private vocational education found 12 elements of strategic leadership for private vocational education, as shown in Figure 1.



**Figure 1.** Elements of strategic leadership for private vocational education.

The strategic leadership can be listed into 12 elements: strategic direction, creation of a suitable corporate culture, putting the strategy into action, management of enterprise resources, teamwork, use of technical analysis tools, techniques for conveying strategies to practice, handling of leadership changes, system thinking, creating opportunities to enhance the efficiency, enhancing communication by innovation and technology, and ethics and values. The 83 indicators suggested by the research are well suited to be used as an analytical tool to identify, quantify and evaluate the development of strategic leadership according to SLPVA. The use of 12 elements is corresponding to studies of the concept

### ***Program for Strategic Leadership for Private Vocational Education***

An analysis focused on program development can be structured as seven main objectives for leadership : high level of understanding and perception, ability to determine and adapt strategies to achieve set goals, ability to anticipate and adapt to future development, enabling progress by creative thinking, viewing progress as a creative transition process, ability to define visions for the organisation, ability to create and sustain a productive environment, and maintaining balance within

the organization. This research called program "SLPVE" program for executives consists of 12 elements and 83 indicators. An intensive training program was suggested structured in three modules as shown in Table 1.

The deployment program consisted of 12 factors and 83 indicators by the intensive workshop and were divided into three modules as follows: The first module consisted of three factors: 1) To provide the strategic direction of organization 2) To create the organization culture 3) Morals, ethics and value. This second module consisted of two factors as follows: 1) Usage of analysis techniques 2) Transferable techniques to the practice 3) Leadership of change. The third module consisted of six factors as follows: 1) Usage the strategy in practice 2) Working as a team (team-work) 3) The organization of the property management 4) Systemic thinking 5) To create the opportunity for increased efficiency. 6) Usage the communication, innovation and technologies.

The evaluation found that the training program is overall appropriate on a high level. The analysis also showed that the selected topics are most appropriate in assessment to meet the aims of the training program. Implementation of SLPVE program on a sampling group of 35 administrators showed that the feasibility/suitability/compliance of five elements; morals, ethics, team-work, analytic technique for transformation of leadership and determining the strategic direction

**Table 1.** Modules for intensive training program.

Module1	Module2	Module3
<ul style="list-style-type: none"> <li>• strategic direction</li> <li>• creating a corporate culture</li> <li>• ethics and values</li> </ul>	<ul style="list-style-type: none"> <li>• the use of technical analysis</li> <li>• the technique of conveying into action</li> <li>• handling of leadership changes - requiring practical training.</li> </ul>	<ul style="list-style-type: none"> <li>• implementing the strategy into action</li> <li>• team building and management</li> <li>• resource management in the organisation</li> <li>• system thinking</li> <li>• creating opportunities for optimisation</li> <li>• communication, innovation and technology</li> </ul>

was at a high level.

## DISCUSSION

Personnel development in the organization is to make the internal management in efficiency. The study of visionary on many levels skilled management conflict that many levels consistent. Tichy and Devanna (1990) did a study on the changes and have concluded the nature of the changes includes: 1) leadership changes by changing the organization of their responsibilities towards the target better, 2) are brave and outspoken. Courage to face the truth, 3) believes people are capable, 4) leads to the awareness of the value of goals and build momentum in performance is achieved, 5) is pursuing lifelong learning, 6) have the ability to deal with complexity, ambiguity uncertainties, and 7) a visual image. Leaders who have characteristics similar backgrounds and work experience is no different. The comments in the same direction, the study reviews the use of experts with knowledge and experience in the management of 83 relevant items as well. Therefore, the consensus required in such cases. Kaplan and Norton (1996) introduced the concept of balanced scorecards a tool to evaluate the performance of the organization. Create a balance between the short and long term goals for the future between the desired output sand driven to the desired results you want. Ingenuity of strategic leadership to understand is a result of operations. However, it can predict the future and to contribute for educational quality standards as well as education need reform (Nuangchalem, 2011, 2012). The application of knowledge from the training to the college after training and leadership development, strategic management found that the behavior leadership development program leadership (Chansirisira, 2011). Strategic management for private vocational college in college is to have ethics and values. And the average

minimum is communicated using innovation and technology. Overall the level of each component, first two metrics are the most practical application to conduction behavior of 7 items sorted by the average of the most encouraging with respect to the corporate may be because of human resource management in organizations. It is essential that managers have a strategy for management. Because it is a personnel management in private education and personnel change is frequently needed.

## Conflict of Interests

The author(s) have not declared any conflict of interests.

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*Full Length Research Paper*

# The development of knowledge and awareness of environmental laws and participation in environmental conservation of probationers

Somchai Wanlu\*, Adisak Singseewo and Paitool Suksringarm

Department of Environmental Education, Faculty of Environment and Resource Studies, Mahasarakham University, Kantarawichai District, Maha Sarakham 44150, Thailand.

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**This research aimed to develop knowledge and awareness about environmental laws and participation in environmental conservation of probationers in MahaSarakhm Province, Thailand. This study was divided into 3 stages. State 1 was the development of a training manual and construction of training evaluation instruments which consisted of a questionnaire on environmental laws, a questionnaire on awareness about environmental laws, and questionnaire about participation in environmental conservation. Stage 2 was the try-out of the training manual and the determination of the instrument qualities with 30 probationers. Stage 3 was the evaluation of the implementation of the developed training manual with 55 purposive and voluntary probationers for 3 days. The findings revealed that the training manual had an effectiveness index of 0.2889. The experimental group showed gains in knowledge and awareness about environmental laws and participation in environmental conservation from before participating in the training session ( $p < .001$ ). Also, they indicated more knowledge of environmental laws and participation in environmental conservation than the control group probationers ( $p < .001$ ). However, the two groups did not indicate different awareness about environmental laws ( $p = .146$ ). In addition, the probationers with different did not show different knowledge, awareness and participation ( $p = .789$ ). The statistical interaction of age and training experience were not found to be significant ( $p = .850$ ).**

**Key words:** Awareness, participation, conservation, environmental laws, probationers.

## INTRODUCTION

At present, environmental problems are considered as destructive problems both quantitative and qualitative, in terms of biological and economic and social environments (Veeravatnanond, 2012; ONEP, 2015). The main cause of the problems is human action (Singseewo, 2011;

Veeravatnanond, 2012) or operation such as deforestation (ONEP, 2015). Lack of forest will lead to drought and irregular raining season which can change the community life. Environmental problems are mainly caused by overconsumption, poor environmental

\*Corresponding author. E-mail: [Som.wanlu@gmail.com](mailto:Som.wanlu@gmail.com).

behaviors, lack of knowledge and skills, lack of environmental ethics (Thathong, 2005; Wongchantra, 2008), inefficient environmental management (Chaisa et al., 2010 ; Sriharuksa et al., 2011) and imbalance of nature itself (Veeravatnanond, 2003; Pleampongsarn, 2006). With the belief that education could help solve environmental problems, environmental education refers to organized efforts to harmonize the learning process with human-environment interactions. It could also refer to propagation methodology for education students and people about environment, with an attempt to develop the quality of environment that human can get benefits from (Pleampongsarn, 2006, Singsewo, 2011, Veeravatnanond, 2012). Environmental education aims at producing a citizenry that has knowledge concerning biological environment and its associated problems, aware of how to help people solve those problems, and be motivated to work toward their solution (Stapp, 1969). To get effective reduction of impacts on environments at the beginning, the usage of environmental laws is a social measure for solving than for prevention (Chaihan, 2003). The measures used for punishment of those offenders are merely ineffective because a small number of those offenders sentenced in the prison are convinced not to behave against the environmental laws. The prison sentence for a majority of offenders does not make them convinced and needed to be self-adjusted and make oneself to be social advantages. The concept of a probation of the offender is recommended by some authorities. This concept is based on a new rationale or reason that the strong punishment of the offender is not a positive effectiveness and is not a means to help the offender convince his/her action or make him/her afraid of the laws. The probation, therefore, is a method of conditioned law extension for the offender in which the offender still normally lives in the community under the investigating and monitoring by probation officials appointed by the court. The probation is not a type of mercy but it has an objective of making the offender correcting one – self by community influence rather than imprisonment. The probationer must know and understand what to conduct according to conditions of good behavior or to a promise to behave well in the future as the court's instruction. If the court orders the offender to work for social benefits such as tree planting, he or she have to know and understand how to plant the tree and take care of environment conservation.

Since the offenders must show themselves to the probation officials on the day, as assigned by the court, for receiving advice or suggestions for adjusting their behaviors appropriate for living as good citizens of the society, they should have a good chance to participating in protection of environments as other normal people do. These offenders should learn about environmental conservation by attending a training session at the time of

reporting to the probation officials. As a judge, therefore, the author is interested in holding a training session about environmental laws for the probationers in order to develop their knowledge and awareness of environmental laws and participation in an environmental conservation.

## Objectives

To develop a training manual for building knowledge of environmental laws, awareness of environmental laws, and participation in an environmental conservation of probationers and to compare the results of using the developed training manual with the probationers as a whole and as classified according to age.

## METHODOLOGY

This research was an Quasi-Experimental Pretest-Posttest with Control Group Design which was divided into 3 stages.

**Stage 1:** The development of a training manual and evaluation instruments.

1. The researcher developed a training manual by studying of various laws related to environments from government documents and interviewing judges, public prosecutors attorneys and probation officials. This information was used for developing activities of a lecture on environmental laws and environmental conservation, small group discussion for brain storming in solving environmental problems, and activity forest planting and garbage disposal.
2. The researcher developed three instruments for assessing the outcomes of the training session which included (1) a questionnaire on knowledge of environmental laws in the form of yes-no type with 24 items; a 5-rating-scale questionnaire about awareness of environmental laws with 23 items; and (3) a 4 - rating scale questionnaire about participation in environmental, conservation with 21 items These instruments were rated as appropriateness by 5 experts.

**Stage 2:** The try-out of the training manual and training evaluation instruments

The researcher tried out the developed training manual with 30 probationers who were voluntarily and purposively selected for 3 days. The three instruments were administered to the participants, 30 min each at the end of the training session. The knowledge questionnaires were scored as yes given a score of 1 and no given a score of 0. The awareness questionnaires were scored as strongly agreed given a score 5, agreed a score of 4, uncertain a score of 3, disagreed a score of 2, and strongly disagreed a score of 1. The participation questionnaires were scored as always practice given a score of 4, frequent practice a score of 3, sometime practice a score of 2, and never practice a score of 1. All scores of these instruments were calculated for the qualities in terms of item discrimination using the item-total correlation which was found between .70 and .89 (significant at .05 :  $.05r_{38} = .296$ ); and internal reliabilities using the Cronbach's alpha coefficient found between .724 - .983.

**Stage 3:** The evaluation of the training outcomes

The researcher voluntarily and purposively selected 109 probationers in

MahaSarakhm Province, Thailand, as participants of the study. They were randomly assigned to an experimental group of 54 probationers who participated in the 3-day training session using the developed training manual; and a control group of 55 probationers who did not participate in the training session. Before the training session, the two groups of probationers were tested using the knowledge questionnaire, the awareness questionnaire and the participation questionnaire.

In addition, the first two questionnaires were immediately administered to the two groups at the end of a 3 - day training session. Only the participation questionnaires were administered to the two groups after 1 month of the termination of the training session-called delayed posttest.

All scores receiving from the awareness questionnaire and the participation questionnaire were calculated for finding means and standard deviation and the researcher set the mean intervals for interpretation as below.

<b>Awareness</b>	
<b>mean interval</b>	<b>meaning</b>
4.51-5.00	strongly agree
3.51-4.50	agree
2.51-2.50	uncertain
1.51-2.50	disagree
1.00-1.50	strongly disagree
<b>Participation</b>	
<b>mean interval</b>	<b>meaning</b>
3.51-4.00	always
2.51-3.50	frequent
1.51-2.50	sometime
1.00-1.50	never

For testing hypotheses, the paired t-test and the F-test (Two-way MANCOVA and ANCOVA) were employed. In addition, the assumptions of MANCOVA and ANCOVA in terms of correlation between the dependent variables, homogeneity of variance, homogeneity of regression slope, and homogeneity of variance - covariance matrices were tested and found the data met the requirement of these assumptions.

## Finding

The findings of the study were found as follows.

1. The experimental group probationers as a whole and as classified according to age (20 years or below and over 20 years) showed gains in knowledge of environmental laws, awareness of environmental laws, and participation in environmental conservation from before participating in the training session ( $p < .001$ ).
2. The probationers with training experience (experimental group) and those without training experience showed different knowledge of environmental laws, and different participation in environmental conservation ( $p \leq .001$ ) (Tables 1 and 2), in favor of the former. However, the two groups did not indicate different awareness of environmental laws ( $p = .789$ ).
3. The probationers with different ages did not evidence differences in knowledge of environmental laws, awareness of environmental laws and participation in

environmental conservation ( $p = .798$ ) (Table 1).

4. The statistical interactions of age with training experience on the three mentioned dependent variables were not found to be significant ( $p = .850$ ) (Table 1).

## Discussion

The first finding of the study revealed that the probationers who participated in the training session had increased their knowledge and awareness of environmental laws and participation in environmental conservation before participating in the training session. It was supported by some related research findings which found that the people who participated in the training using the manual on waste disposal showed gains in their knowledge-understanding and participation in waste management before participation in the training session (Meaungprom, 2008) and the members of subdistrict organization had increased their awareness and practices of natural resources and environments before the training (Traithip, 2008; Salaibat, 2011). It might be due to this training session had some effective activities such as small group discussion and practical activities which could develop the probationers' knowledge and awareness of environmental laws and finally changed their participating behaviors in environmental conservation (Buphawal, 2012). This was relevant to the belief in the concepts of human behavior changes which stated that the knowledge and awareness and valuing may result in behavioral changes (Schwartz, 1974) and the perception of acquisition of environmental behavior as an ultimate goal of the educational process has maintained a strong hold in the environmental education community (Chawla, 1999; Marcinkowski, 2004).

The second finding found that the probationers who participated in the training session showed more knowledge of environmental laws and participating behaviors in environmental conservation than did those probationers who did not attend the training session. It was supported by the research finding which showed that the people who participated in training using the manual on waste disposal had more knowledge and understanding and participation in waste management than those people who did not attend the training (Meaungprom, 2008; Chaihan, 2003). This might be because the probationers who attended the training could have more understanding of detailed knowledge of forest planting and waste disposal resulting in a public mind and consciousness of having participating conservation behaviors in everyday life.

However, the probationers who attended and those who did not attend the training session did not indicate awareness of environmental laws differently. This might be due to some knowledge of environmental laws and

**Table 1** Comparisons of knowledge, awareness and participation in environmental conservation of the experimental group and the control group with different ages (Two-way MANCOVA).

Source of Variation	Wilk' s Lamba	Value	F	Hypothesis df	Error df	P	Patial Eta Squared
Pretest knowledge	.452	.452	40.460	3	100	<.001*	.187
Pretest awareness	.813	.813	7.680	3	100	.657	.016
Pretest participation	.984	.984	.539	3	100	.105	.059
Group	.942	.942	2.102	3	100	<.007*	.535
Age	.990	.990	.338	3	100	.798	.010
Interaction	.992	.992	.265	3	100	.850	.008

\*Statistically significant at the .05.

**Table2.** Comparisons of knowledge, awareness and participation of the experimental group and the control group (Univariate Test One - way ANCOVA).

Dependent Variable	Source of Variation	SS	df	MS	F	p	Patial Eta Squared
Knowledge	Pretest	82.853	1	82.853	26.337	<.001*	.199
	Group	311.895	1	311.895	99.143	<.001*	.483
	Error	333.465	106	3.146			
Awareness	Pretest	.341	1	.341	.726	.396	.007
	Group	1.008	1	1.008	2.148	.146	.020
	Error	49.760	106	.469			
Participation	Pretest	.572	1	.572	3.128	.080	.029
	Group	7.178	1	7.778	42.182	<.001*	.285
	Error	19.395	106	.183			

\*Statistically significant at the .05.

people who were captured by the policemen due to illegal behaviors against the environmental laws could be publicized via the social media such as television, news reports, and newspapers. Both groups, therefore, could develop equal awareness of environmental laws.

The last finding showed that the probationers aged 20 years or below and those aged over 20 years did not show differences in knowledge and awareness of environmental laws and participating conservation behaviors was supported by the research findings that the members of subdistrict organization with different ages did no have different knowledge, awareness and practices of conservation of national resources and environments (Meaungprom, 2008 ; Hunchaisri, 2010 ; Sunthonchai, 2010 ; Jansamood. 2010 ; Sriharuksa. 2011). This might be due to both groups could receive knowledge and build awareness of environmental laws from daily news on violations of the environmental laws. Both knowledge and awareness may be inadequate for changes of participating conservation behaviors.

### Recommendation

This research valued the probationers who could live normally in a society. They could have public mind as good citizens to cooperatively participate in conserving natural resources and environments. The methodology of this research may be applied or adapted to be implemented with other probationers across the country. Also, this methodology could be applied to children and youth probationers by providing activities appropriate to the abilities of the participants.

### Conflict of Interests

The authors have not declared any conflict of interests.

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*Full Length Research Paper*

# Curriculum development for enhancing the art aesthetic in art learning substance for grade 7 students: Pilot study

Dheerayut Wisedsang<sup>1\*</sup>, Chowwalit Chookhampaeng<sup>1</sup> and Pitak Noiwangklang<sup>2</sup>

<sup>1</sup>Faculty of Education, Mahasarakam University, Mahasarakam, Thailand.

<sup>2</sup>Faculty of Fine and Applied Art, Mahasarakam University Mahasarakam, Thailand.

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The objective of this research and development was to develop a curriculum for enhancing grade 7 students' aesthetic sense and substantial art learning. There were 2 phases of the study consisting of: (i) the study of basic information about art aesthetics, including the attributes, approaches, theories, problems, and needs, (ii) the development of a tentative curriculum including 1) Rationale, 2) Objective, 3) Content, 4) Instructional activity (using PRemAA Process), and 5) Measurement and evaluation as well as a pilot study in order to study the feasibility of the resulting curriculum. The research findings found that the students' post-test art aesthetic attribute was higher than the pre-test. In addition, the curriculum consisted of feasibility in both theory and practice.

**Key words:** Curriculum development, instructional design, aesthetic education, art appreciation, aesthetic values.

## INTRODUCTION

Art education was the first priority being recognized to be able to develop human beings' aesthetic sense. Ideally, a well-rounded human being would not only have knowledge and skill in ones' occupation, but also have knowledge and comprehension of the value and merit of aesthetic sense. Consequently, the practice of art training was to develop ones' aesthetic sense to be right and good way the human should live. Specifically, in the present, it is necessary to create a balance in life and not to be extreme on either side. The study of aesthetic sense is a way to fulfill ones' life as the ultimate goal for art educational management and may serve as a

powerful antidote to the forces that would homogenize culture worldwide (Miron, 2003, pp.29 – 30).

Recently, many economic and social changes have affected children and youths causing them to have undesirable behavior. But this severe coarseness of mind and behaviour could be treated by the development of a greater sense of art aesthetics to nourish one's mind to be perfect and delicate through the significance of aesthetic sense. However, the curriculum management of art education in Thailand has not been able to develop and enhance the students' aesthetic sense to a satisfactory level. As can be seen from the report of the

\*Corresponding author. E-mail: [tultuy5046@gmail.com](mailto:tultuy5046@gmail.com).

office of cultural surveillance (2011, pp.38-40), it was stated that children and youths are facing social obstacles or risks including mental health and stress problems, the intensity of which would be likely to increase. In addition, the study of the effect of external quality assurance in schools under the jurisdiction of the Office of Basic Education Commission (Kaptapol, 2007) indicated the students' aesthetic sense and music and sports characteristics are at the lowest measurable level in both the first and the second round. So, there was a need to consider the curriculum development of art education for enhancing ones' aesthetic sense by applying the existential-phenomenological theories of E.F. Kaelin as an account of aesthetic education (Johnson,1998), which focused on considering the performance of art by instinct or recognition of performance quality as an existential-phenomenological issue. Also, the theory of the knowledge management process by Broudy (1972), the aesthetical critique of Smith (1968), the theory of teaching art appreciation of Johansen (1979, pp.4 -14), and aesthetic experience model of Leder et al. (2004) were used in order to develop the students to be global citizens, able to live with others peacefully, and have beautiful minds as well as life equilibrium.

### Research objectives

1. To study the approach, rationale, theory, problem, and need for Curriculum Development in Knowledge Management of Art Subject for Enhancing the Students' Appreciation.
2. To develop the Curriculum for Enhancing Grade 7 Students' Art Appreciation, and Art Learning Substance.

## RELATED LITERATURE

### Curriculum development

Chookhampaeng (2008) defined curriculum development as "the construction of experience, the order and step for students to learn from experiences, change their behavior, and be able to obtain self-development based on objectives including: the curriculum development or outlining, the curriculum usage, and the curriculum assessment by constructing new curriculum as well as developing the former curriculum to be better." The curriculum consisted of the following components: 1) rationale, 2) objectives, 3) curriculum content, 4) instructional activity management, and 5) measurement and evaluation. (Beauchamp, 1981; Tyler, 1949; Taba, 1962).

### Curriculum development model

In developing a model of Curriculum Development, the researcher synthesized the models for implementation in

curriculum development of Saylor et al. (1981), Taba (1962) and Madeja and Kelly (1970). This synthesis involved the following steps: 1) the study of basic information, problem situation, need, necessity, and basic approach of curriculum development; 2) determining the content material as well as activities and processes in knowledge management; 3) piloting the curriculum; and 4) evaluation and assessment. The curriculum development of this study was implemented using content in each course based on the Disciplines First Approach (UNESCO, 1981, pp. 19 – 20). The objective was to infuse art aesthetics into each course by applying Kaelin's Existential-Phenomenological Account of Aesthetic Education (1966). For Kaelin, the way of existence of each learner should be as well a relationship with real environmental conditions, feelings, expression, and decision making (Kaelin, 1966, pp. 3 - 12).

### The approach of body of knowledge in art related to aesthetic promotion

The body of knowledge in Art Education regarding the promotion of aesthetic sense consists of: 1) quantitative knowledge, or learning how to think. This includes the history and basic theories of art; 2) art knowledge in practice, which refers to the application of theoretical approaches into technical processes of art performance, creation and production as a form of learning by doing; and 3) values-based knowledge, which includes the aesthetic experience, criticism, analysis, and judgment of the value of art, which were important components for Art Aesthetic (Ministry of Education, 2008, pp. 1–12; Clark et al., 1987, pp. 135–136; Smith, 1989).

### The approach of art aesthetic

Art Aesthetic referred to one's appreciation, feeling in value, and satisfaction in art by reception through the Aesthetic Experience (Office of Nation Education Standards and Quality Assessment, 2012: 24; Fenner, 2008, pp. 18-19). The aesthetic sense is seen as one's intrinsic value residing in the affective domain (D'Onofrio, 1986) based on Bloom's Taxonomy of Education Objectives (Bloom 1956). Bloom's pioneering work described steps in educational acquisition, including: 1) Receiving or attending, 2) Responding, and 3) Valuing. (Krathwohl et al., 1964, pp. 36-38) This was congruent with the steps in Art Aesthetic Development of Parson (cited in Clover, 1995, pp. 15-18) and Housen (Fairchild, 1991, pp. 267-280). The analysis of the relationships is shown in Table 1.

### The attributes of art aesthetic sense

The researcher studied related approaches looking at the attributes of an art aesthetic sense, including

**Table 1.** Analysis of theoretical congruency in steps of aesthetic development.

Parson	Housen	Krathwohl and others
Favouritism	Accountive	Receiving or attending
Subject	Constructive	} Responding
Expression	Classifying	
form and style	Reflective	} Valuing
Judgment	Re-creative	

Ramachandran and Hirstein (1999, pp. 39-58), Broudy (1972), Smith (1989, pp. 216-217), Barrett (2007), Ross (1982, pp. 78-97), Crawford (1991: 21), Beardsley (1991), Fenner (2008, p. 38) and Goldman (1995). The conclusion is that a sense of aesthetics or art appreciation could be reflected from one's aesthetic experience through one's personal beliefs, preferences, comprehension and ability to interpret an art object. The students' competency in judging the aesthetic value of an object is obtained from prior aesthetic performance. It was the task of the learner to understand oneself for developing the meaning in feeling and thought, in personal livelihood or existential intelligence which could be summarized and analyzed in order to show the relationship with the educational objective system. In Krathwohl's Affective Domain which was in the level of Step 1) Receiving or attending when the students received stimulus, Item 1.3) Controlled or selected attention which was the highest level of Step 1. Step 2) Responding, Item 2.1) the Acquiescence, Item 2.2) Willingness to respond, Item 2.3) Satisfaction in response, and Step 3) Valuing, Item 3.1) Acceptance of a value, and Item 3.2) Preference of a value (Krathwohl, 1964, p. 37) as follows (Table 2).

## RELATED RESEARCH LITERATURE

Research studies in aesthetics, aesthetic sense, and aesthetic promotion were consulted as the major goal of developing a learning management approach to the study of art. The study for the promotion of aesthetic sense through aesthetic experiences and affective responses were examined by studying different issues in aesthetics in the variety of theories, approaches, rationales, and models. The research methodology included both quantitative and qualitative research. Eckhoff (2006) explored children's appreciation in a museum study program by using ethnographic methodologies. The research findings found that art comprehension and appreciation were influenced by the environment. In addition, the particulars of instructional management affected one's appreciation from Moderate Level to High Level. Palega (2011) found that the aesthetic experience was a relationship between various senses. Aesthetics

was full of meaning because it was combined with emotional affect. Whitelaw (2012) studied the role of art in the lives of adolescents. The research findings indicated various practical ways to promote the goals of inquiry and analytic thinking.

## RESEARCH METHODOLOGY

Curriculum development for enhancing the art aesthetic in substantial art learning for grade 7 students consisted of the following:

### Phase I: The study of background information

- 1) The Study of Grade 7 Students' art appreciation attributes. The objective was to study students' art aesthetic attributes. The methodology consisted of in-depth interviews conducted by a group of experts with art experience as well as art teaching, and the study from documents, textbooks, articles, and related research literature. Data from the study of documents, textbooks, articles, and related research literature as well as in-depth interviews were analyzed by analytic induction.
- 2) The study of the approach, rationale, and theory of knowledge management in the field of art for enhancing the students' aesthetic attribute. The objective was to know the approach, rationale and theory of knowledge management in art as a subject in order to enhance the students' aesthetic by studying the documents, textbooks, articles, and related research literature. For data analysis in this phase, the analysis, synthesis, and content analysis were administered in order to obtain the knowledge management process for enhancing grade 7 students' art aesthetic attribute.
- 3) The study of the problems and need for knowledge management in the field of art as well as the enhancement for Grade 7 students' art aesthetic attribute.

The objective was to know the problems of the situation of knowledge management in art as well as to enhance grade 7 students' art aesthetic attribute based on the Core Curriculum of Basic Education 2008 and to know the need of knowledge management in the field of art as well as to enhance grade 7 students' art appreciation. The samples in this study were 10 art teachers in Sri-sa-ked-wittayalai School, selected by purposive sampling; 12 students in grade 7 of Sisaket Wittayalai School who were enrolled in a course on the foundation of art, and selected by purposive sampling; and 50 parents of students in grade 7 who were selected by cluster (Area) random sampling as single-stage cluster sampling. The methodology consisted of focus group discussion regarding the problem of knowledge management in art for enhancing grade 7 students' art appreciation for teachers and students. In addition, the assessment of parents' need for curriculum development was performed by using a rating scale.

Data from focus group discussion were analyzed by analytic induction. Data from the survey of need were analyzed by calculating the Mean ( $\bar{x}$ ), and Standard Deviation (S.D.) of parents' need level.

### Phase II: Curriculum Development

- 1) Development of Tentative Curriculum. To determine a tentative curriculum to be developed so that it would be relevant to the development of students' art appreciation attributes, the basic information from Phase 1 was used as a guideline by determining the curriculum's rationale. Then, the curriculum and its components were outlined to be congruent with this rationale. The components included the objectives, content, the

**Table 2.** Frequency distribution in attribute of art aesthetic sense.

<b>Affective domain</b>	<b>Attribute of art aesthetic sense</b>	<b>Frequency</b>
		9
1. Receiving or attending	1. Receive special value from the artwork, caused by one's own satisfaction.	4
1.1(1.3) Controlled or selected attention	2. Be interested in the elements of art, such as line, colour, light, shadow, shape, figure, and surface.	4
	3. Consider the artwork, and one's personal preferences for receiving and interpreting the artwork.	3
	4. Be interested in, be familiar with, and be able to recall the artwork.	1
	5. Select the information, preferences, or foundation providing value related to the expression which would cause the value to be acknowledged.	2
		2
2) Responding,	1. Believe that the elements of art (shape, line, shadow, and space) look like the real picture.	1
2.1 Acquiescence	2. Give an importance to the artwork's components and production techniques.	1
	3. Understand the viewer's personal perspective and feeling while viewing the artwork.	1
	4. Believe that the goals of art can be to question its receiving and understanding.	1
	5. Believe that the artwork would show similarities to other things and reality of the world.	2
	1. Understand and explain the relationship between components in viewing the Aesthetic Object.	2
	2. Openness for receiving the meaning of art.	1
2.2 Willingness to respond	3. Be able to interpret the artwork.	1
	4. Consider that good drawings should be attractive and interesting.	1
	5. Judging the Value of Belief in a Value.	1
	6. Be likely to appreciate the artwork by oneself, and have a personal response.	1
		1
	1. Find the experience powerful, moving, lively, and cheerful.	5
	2. Obtain satisfaction, pleasure, appreciation, and remembering.	4
	3. Be Fascinated, and Excited.	4
2.3 Satisfaction in response	4. Be Moderate, and Peaceful.	3
	5. Be cooperative, congruent, and united.	2
	6. Be Delightful.	2
	7. Be Sensitive.	1
Affective Domain	Attribute of Art Aesthetic Sense	Frequency
	1. Believe that the artwork would show similarities to reality, the world and real-world objects.	4
	2. Accept the Background of the artwork.	2
3. Valuing	3. Accept the variety of values in others.	2
3.1 Acceptance of a value	4. Analyze for checking the level of understanding and feeling which would help to classify and judge the appreciation.	1
	5. Be able to evaluate the aesthetic value obtained from the artwork.	1
	6. View the values of patience and interest as a major process of the creative artist.	1
	7. Be attentive and caring.	1
		2
	1. Art is related and meaningful for oneself.	2
	2. Touch those aesthetic objects by ourselves and leave them without thinking that they are ours.	1
3. 2 Preference of a value	3. Be Ethical and Concerned with the feelings of others.	1
	4. Exhibit or show an interest in the body of knowledge in Art.	1
	5. Judge on the basis of good and appropriate reasons.	1

learning and teaching activities, and the tools for measurement, assessment and evaluation.

#### 2) Validation of Tentative Curriculum.

To evaluate the propriety and congruence of the tentative curriculum, and to revise and improve its weak points, documents were analyzed by seven experts in curriculum development as well as those with experience in art and art teaching. Data were analyzed by calculating the Mean ( $\bar{x}$ ), and Standard Deviation (S.D.).

#### 3) Instrument of Curriculum.

The instruments for trying out the curriculum were: (1) The handbook of curriculum development consisting of: 1) introduction for instructional management (preparation for students, preparation for teachers, knowledge management, and measurement and evaluation); 2) the learning unit and lesson plan (learning content, learning objective, knowledge management activity, knowledge management media, measurement and evaluation of learning achievement). The quality of curriculum handbook was determined by evaluating the propriety which was scored at "Highest" level (=4.33–4.66) (2) the art aesthetic attribute evaluation form. A content analysis was performed by asking 5 experts in curriculum and knowledge management in art education to consider the congruence as well as analyzing the Index of Congruence (IOC = 0.6–1.00), searching for construct validity by using the Known-Group Technique, calculating the item total correlation and reliability ( $\alpha = .96$ ), (3) Students' art aesthetic observation form (evaluated by the teacher and by classmates), the quality assessment was performed by 5 experts' consideration and analysis using the Index of Congruence (IOC = 0.6 – 1.00); and (4) the self report form. The quality assessment was performed by 5 experts' consideration and analysis using the Index of Congruence (IOC = 0.6–1.00).

#### 4) Pilot Study.

To investigate the feasibility, potential problems, and obstacles in using the developed curriculum, a pilot study using learning unit 1 for 5 lesson plans was conducted. The population included 395 Grade 7 Students attending Satee-siriked School, and who were enrolled in the course entitled Foundation of Art. The samples were 39 students from one class of the former group. They were selected by cluster (Area) random sampling as Single-stage cluster sampling. For data collection, the researcher assessed the art aesthetic sense before and after the pilot study through the art aesthetic attribute evaluation form, and collected art aesthetic attributes after examining (1) observations by teachers of the level of aesthetic knowledge of the students; (2) observations by classmates of the level of aesthetic knowledge of the students; and (3) self-report with support by co-researchers for data collection. For data analysis: 1) Art aesthetic attributes were analyzed by dependent-samples t-test; 2) the students' art aesthetic observation form (completed by teachers, and by classmates); 3) the self-report data were analyzed by calculating the mean, and standard deviation.

## RESEARCH FINDINGS

### The findings of basic information

#### 1) The findings of Grade 7 Students' Art Aesthetic Attribute.

According to the experts' in-depth interviews, and the study from documents, textbooks, articles, related research literature, and data found that the art aesthetic sense referred to one's appreciation, satisfaction in beauty and virtue as value sense of art through one's

aesthetic experience. The persons with art aesthetic sense as classified by affective domain theory of Krathwohl et al. (1964, pp.36 - 37 (consisted of: (1) controlled or selected attention referring to one's interest, selection to see, seeing, and being familiar with artwork consisted of the content, material and method, visual elements, and organizing principles of ten art components; 2) acquiescence referred to the acceptance and giving an importance to the principle of art components, rules, theory, and recognition including ten components; 3) willingness to respond referred to one's initiation and intention to practice the art performance by oneself including 7 sub-attributes; and 4) satisfaction in response referring to one's satisfaction, appreciation, and delight, conformity, in approach, technique, method, and model of art including 9 sub-attributes; 5) acceptance of a value referring to one's recognition in value, the opportunity in art expression and practice, the analysis, critique, assessment, and development in art including 7 components; and 6) preference of a value referred to one's support as well as participation in the art activity and precise expression in one's faith in the artist who created the artwork including 7 components.

#### 2) The findings of approach, rationale, theory of knowledge management in the field of art for enhancing the students' aesthetic sense.

The knowledge management system based on curriculum should be implemented for developing the students' ability to see with wisdom, intelligence, and wit (Smith, 2003; Freedman, 1994) by integrating the content and learning experience of more than one subject for students' learning associated with their real lives (Greer, 1984; Ornstein and Hunkins, 1988) by analyzing, critiquing, and practicing art through a learning process for enhancing their aesthetic sense.

#### 3) The findings of problems and need for knowledge management in Grade 7 Students' study of art.

The findings of problems and need for knowledge management in the study of art, and enhancement for art aesthetic sense, found that the system of instructional management (based on school curriculum) implemented by most teachers was focused on work practice. Therefore, most of learning activities were the Art Practices. In addition, the emphasis was on performance indicating the skill and evaluation in work practice. This caused many students without art skill who had no self confidence in learning art to be anxious in learning activities, thus affecting their interest in art. For the parents' need in knowledge management of art subject of grade 6 students, it was found that the parents' overall need was in "High" level. ) = 2.63 , S.D. = 0.53).

### The findings of Curriculum Development

#### 1) The findings of tentative curriculum development were as follows:

## The Rationale of Curriculum

The rationale of curriculum was that the program should enhance the students' knowledge and understanding of themselves in their art aesthetic feeling by integrating the emphasis on subject material from a body of knowledge in art regarding the enhancement for art aesthetic sense including: 1) Quantitative Knowledge, 2) Practical or performative knowledge in art, and 3) Qualitative knowledge in art as indicated by DBAE (Discipline – Based Art Education) through PRemAA Process (P-Preparation, Rem-Remembrance, A-Acquaintative, A-Appreciation).

## Objective

The objective is for the students to know and understand themselves relating to art aesthetic sense regarding one's appreciation, sense of value, and satisfaction of art through one's perception from aesthetic experience by selecting one's interest, acquiescence to respond, preference of a value, willingness to respond, satisfaction to respond, acceptance of a value, and preference of a value.

## Curriculum content

The content as derived from the above rationale should focus on subject content which determined the learning unit to associate body of art knowledge in enhancing art aesthetic sense as well as DBAE curriculum management to cover the content as follows: 1) Fundamental art consisting of knowledge in: definition of art, the kinds of art, art components, visual elements, composition, and aesthetics, 2) History of art, knowledge of history consisting of the history of Thai art, 3) art criticism, and 4) art production including the infusion of fundamental art.

## Instructional activity

The learning activity management by using the PRemAA Process in learning for enhancing the students' aesthetic sense, consisted of the following processes :1 ) the Preparation referred to the process of selection, the readiness preparation for perception from the aesthetic object as well as the study of aesthetic object details; 2) Remembrance Step referred to the analysis process for recalling one's memory regarding to aesthetic experience by considering it as a whole; (3)Acquaintance Step referred to one's perception process in aesthetic experience, being able to understand, interpret, and become familiar with the aesthetic value with specific relationship; 4) Appreciation Step referred to one's evaluative process for concluding the aesthetic value

from acquainted process in aesthetic experience and the aesthetic object until knowing its value and accepting, being satisfied and appreciating.

## Measurement and evaluation

The measurement and evaluation consisted of: 1) before the learning activity management based on curriculum by evaluating the students' art aesthetic attribute using the students' art aesthetic evaluation form, 2) the measurement and evaluation during the learning activity management as the evaluation after the learning activity management in each lesson plan, 3) the evaluation after the learning activity management as an authentic assessment by using: (1) The students' art aesthetic attribute assessment form, (2) The art aesthetic attribute observation form by teachers, and the art aesthetic attribute observation form by classmates, and (3) self report.

## Details of curriculum

The learning unit is based on the curriculum and is congruent with rationale, objective, and content analysis of curriculum (Table 3).

2) The investigation of quality in tentative curriculum.

According to the evaluation of propriety of this curriculum by seven experts, it was found that the curriculum included the overall propriety at "Highest" level. ( $\bar{X} = 4.55$ , S.D. = 0.49) As for the evaluative findings of tentative curriculum it was found that the developed curriculum consisted of an index of congruence between 0.83–1.00, the overall index of congruence = 0.95 which was in the quality criterion.

3) The outcome of Pilot Study.

The experimental findings were shown as comparative findings of the mean value in art aesthetic attributes before and after the study of grade 7 students as the samples of this study. The mean values and application of the standard deviation of art aesthetic attributes observation form by classmates as well as the self report were as follows (Table 4).

As shown in Table 1, there were significant differences in Grade 7 Students' Art Aesthetic of grade 7 students studying the developed curriculum, between pre-test and post-test at .05 level.

According to Table 5, grade 7 students, the samples in studying by developed curriculum, there were significant differences in Mean Value of Students' all of 6 aspects in Aesthetic Sense between the pretest and posttest at .05 level.

**Table 3.** Details of curriculum.

Unit	Name of unit	DBAE				Body of knowledge attribute			Core curriculum standard	
		Aesthetics	criticism	Performance	History	Quantitative	Practical	Qualitative	standard a 1.1	standard a 1.2
1	Aesthetics and Basic Art Knowledge	✓	✓	✓	✓	✓	✓	✓	✓	✓
2	Aesthetics in Thai Art Work	✓	✓	✓	✓	✓	✓	✓	✓	✓
3	Aesthetics in Local Art Work	✓	✓	✓	✓	✓	✓	✓	✓	✓
4	Aesthetics in The King's Art Work	✓	✓	✓	✓	✓	✓	✓	✓	✓

**Table 4.** Comparison of the mean of art aesthetic attribute before studying (pre-test), and after studying (post-test).

Art aesthetic attribute	N	$\bar{x}$	SD	df	t	p
Before	39	2.83	0.649	38	12.88*	0.00
After	39	4.46	0.314			

\*p < .05.

**Table 5.** Comparison of the mean values of students' in all of 6 aspects in art aesthetic sense between pretest and posttest.

Art aesthetic sense	Pretest		Posttest		t	p-value
	$\bar{x}$	SD	$\bar{x}$	SD		
Controlled or Selected Attention	2.98	.29	4.43	.13	15.131*	.000
Acquiescence	2.89	.26	4.46	.112	17.662*	.000
Willingness to Respond	2.87	.12	4.42	.118	22.579*	.000
Satisfaction in Response	2.73	.29	4.45	.146	18.033*	.000
Acceptance of a value	2.64	.21	4.51	.070	19.391*	.000
Preference of a value	2.83	.33	4.50	.099	14.689*	.000

\*p < .05.

According to Table 6, the students' overall mean value of art aesthetic attribute was at a "High" level. (= 4.47, S.D. = 0.30) The highest level of mean value included the acceptance of a value and preference of a value.

As shown in Table 7, the overall mean values of the aesthetic attribute observation evaluated by teachers, the aesthetic attribute observation evaluated by classmates, and the student's self-report after studying the developed curriculum, ranged from high to moderate, and high levels with the mean value = 2.69 and standard deviation = 0.45, the mean value was 2.49 with a standard deviation of 0.52, and the mean value was 2.53 with a standard deviation of 0.51 respectively.

Furthermore, it was also found that student reflections

in all six aspects of art aesthetic sense in the students' self report were as follows: Controlled or Selected Attention: It was found that the students expressed their interest in art or artistic activity as well as searching for experiences or participating in art activities, chose to view art, and appreciated the content of artworks. Acquiescence: It was found that the students appreciated expression of their own and the others in artworks. Willingness to Respond: It was found that the students acted upon and practiced basic arts skills as well as initiating the creation of artwork enthusiastically in order to transfer their thoughts as well as imagination through Art Component. Satisfaction in Response: It was found that the students were pleased and cheerful in chosen art

**Table 6.** The mean values of students' art aesthetic attribute after studying from the developed curriculum.

<b>Lists</b>	$\bar{x}$	<b>S.D.</b>	<b>Appreciation</b>
<b>Controlled or Selected Attention</b>			
1. I am interested in visual element (point, line, figure, shape, light, shadow, color, and texture) that appear in art work .	4.48	0.50	High
2. I like the content of some pieces of art.	4.4	0.67	High
3. The material and techniques make me interested in Art.	4.34	4.34	High
4. I appreciated the artwork.	4.22	0.79	High
5. The artwork stimulates me to be interested in meaning perception.	4.34	0.72	High
6. I am familiar with the climate in some pieces of art.	4.32	0.77	High
7. I am familiar with the content in some pieces of art.	4.48	0.68	High
8. I am interested in the art composition.	4.56	0.81	Highest
9. I prefer to see art for its own value.	4.48	0.61	High
10. I prefer art which is connected to my former experience.	4.5	0.61	Highest
Average total of Controlled or Selected Attention	4.43	0.66	High
<b>Acquiescence.</b>			
11. I give importance to each artist's art expression. technique	4.38	0.75	High
12. I am willing to respond to the principle of Art Component.	4.58	0.57	Highest
13. I give importance to the principle of Art Component.	4.28	0.61	High
14. I give importance to the principle of Color Theory.	4.38	0.67	High
15. I respond to the theory of creation of art.	4.4	0.61	High
16. I have feeling of conformity when I see the Art Work.	4.5	0.61	High
17. Sometimes, I concentrate when I see the Art Work.	4.68	0.62	Highest
18. Art helps me to perceive and understand the beauty.	4.4	0.67	High
19. Art the emotions and colors of nature and different things.	4.66	0.56	Highest
20. Sometimes, I respond to the artistic expressions of others.	4.5	0.61	Highest
Average total of Acquiescence.	4.46	0.64	High
<b>Willingness to Respond</b>			
21. I perform to practice the Art Basic Skill.	4.48	0.58	High
22. I study and practice art visual elements to be skillful.	4.42	0.61	High
23. I study and practice art component management to be interesting.	4.32	0.74	High
24. Sometimes, I want to express my feeling and thought by creating an artwork.	4.36	0.78	High
25. I want to tell a story by using visual art.	4.62	0.57	Highest
26. I create artwork to express my thought and imagination.	4.48	0.79	High
27. Sometimes, I study extra information for creating the art.	4.32	0.84	High
Average total of Willingness to Respond	4.42	0.70	High
<b>Satisfaction in Response</b>			
28. I can feel the liveliness of art.	4.24	0.82	High
29. I am satisfied and pleased with art.	4.38	0.67	High
30. I appreciate some pieces of art, and I still remember them.	4.38	0.60	High
31. I feel the charm and excitement of art.	4.42	0.54	High
32. Sometimes, I feel excited when I see art.	4.56	0.54	Highest
33. I feel satisfied and peaceful when I see art.	4.66	0.56	Highest
34. I see the congruence and unity of art.	4.62	0.57	Highest
35. I see the importance of art.	4.66	0.72	Highest
36. I see the delicacy of art.	4.36	0.63	High
Average total of Satisfaction in Response	4.45	0.65	High
<b>Acceptance of a value</b>			
37. I present my artwork to my classmates.	4.66	0.59	Highest
38. I show my artwork.	4.64	0.53	Highest
39. Sometimes, I analyze the historical background of art.	4.54	0.71	Highest
40. Art activities cause me to be sensitive.	4.54	0.61	Highest

**Table 6.** Cont'd.

41. Art activities cause me to be good.	4.56	0.61	Highest
42. Art activities help me to understand the beauty and appreciate more works of art.	4.5	0.58	Highest
43. I could evaluate the value of beauty from artwork.	4.44	0.61	High
44. Sometimes, I improve my Art production.	4.46	0.79	High
Average total of Acceptance of a value	4.45	0.66	High
Preference of a value			
45. I see the value of patience, attention, and process in creating the artwork.	4.48	0.76	High
46. I pay attention to as well as understand the work of the artist.	4.36	0.69	High
47. I am inspired by artists who create art.	4.46	0.54	High
48. I am pleased when others see those artworks willingly without viewing those that are mine.	4.44	0.64	High
49. I support art activities.	4.58	0.57	Highest
50. I participate in art activities.	4.6	0.70	Highest
51. I help my friends in creating art.	4.66	0.59	Highest
Average total of Preference of a value	4.50	0.66	Highest
Total	4.47	0.30	High

**Table 7.** The overall mean values of aesthetic attribute observation evaluated by Teachers, the aesthetic attribute observation by classmates, and self- report based on curriculum.

Instruments	$\bar{x}$	S.D.	The mean of aesthetic attribute
Art Aesthetic Observation Form evaluated by Teachers.	2.69	0.45	High
Art Aesthetic Observation Form evaluated by Classmates.	2.49	0.52	Moderate
Students' Self Report	2.53	0.51	High

activities, satisfied with their work performance as well as others,' and appreciated artwork. Acceptance of a value: It was found that the students created their artwork delicately and evaluated the work of others politely. Preference of a value: It was found that the students invited or supported others to join art activities as well as expressed their opinion indicating their confidence on Artists' ideas in creating the Art Performance.

## DISCUSSION AND CONCLUSION

### The study of basic information

A curriculum was developed for enhancing the art aesthetic response with the ultimate goal of knowledge management for the field of art education (Hamblen, 1997). According to the study of situation, problem, and need for enhancing the students' aesthetic sense, it was found that the knowledge management for art education was not able to develop students' aesthetic attribute as it should. Besides, the parents needed some knowledge management for enhancing the students' aesthetic attribute, scoring at a "High" level. This finding was supported by Rush's (1997, p.29) recommendation that

most schools should enhance the students' aesthetic attributes, since the aesthetic sense referred to one's appreciation as well as satisfaction in beauty and virtue as ones' feeling of value in Art. According to the researcher's aesthetic experience, the characteristic of persons who had aesthetic sense could be classified based on the theory of affective domain of Krathwohl et al. (1964), which was similar to the study of aesthetic development of Parson (cited in Clover, 1995, pp.15-18), and Fairchild (1991, pp.267-280) which was the same as the presentation in learning performance in aesthetics of Stewart (1994, pp.80-81). The students' desirable characteristics included: 1) search for nature as well as experience art and beauty, 2) believe in the value, 3) appreciate that value, and 4) respect that value.

### Curriculum development

The curriculum for enhancing grade 7 students' aesthetic sense and art learning substance, was the program promoting the students' knowledge and understanding of themselves regarding their aesthetic sense in art through the infusion of subject content by bringing the body of knowledge in art regarding the enhancement for art

aesthetic sense including: 1) quantitative knowledge, 2) practical or performative knowledge, 3) qualitative knowledge in art, and curriculum organization such as DBAE through the infusion of fundamentals of art by applying an existential–phenomenological account of Kaelin (Johnson, 1998) who paid attention to significance of consideration in art performance by instinct or awareness of quality of performance directly which was aesthetic phenomenon or experience. The curriculum consisted of: 1) Rationale, 2) Objective, 3) Content, 4) Instructional activity by using PRemAA Process, and by being congruent with the questions for curriculum development which Tyler (1949, p.2) recommended. The curriculum development should consider the learning experience management of how to help students to accomplish their goals as well as establish an effective curriculum. The research findings show that the students had art aesthetic attributes during the post-test at a higher level than the pre-test. In addition, the overall mean value of posttest in aesthetic sense evaluated from the observation form by teachers, the observation form by classmates, and the self-report ranged from “Moderate” levels to “High” levels. These findings have supported the research findings of Palega (2011) regarding “aesthetic experience in daily life through phenomenon process.” The in-depth interviews regarding the various kinds of perception in aesthetic sense indicated obviously that the aesthetic experience was meaningful because of the infusion in affect. Furthermore, Venable (1997) found that there was a relationship between the students’ aesthetic comprehension and DBAE. Moreover, it was in the same direction as the research studies of Whitelaw (2012), Shin (2012), and Eckhoff (2006) in the issue of phenomenon study in aesthetic attribute of individuals as well as a study program in museums using the qualitative research affecting the students’ aesthetic development. The current research was supported by the Standards of the Core Curriculum in Basic Education 2008. The standard of Art Learning [ALS] 1.1 specified that students need to be able to create work in visual art according to their own imagination as well as analyze, critique, and criticize the value of visual art, and express their feelings and thoughts in artwork independently, and appreciatively. Furthermore, ALS 1.2 focused on the goal that students should understand the relationship of visual art, history, and culture. They should see the value of art, its cultural heritage, local wisdom, Thai wisdom, and universal wisdom. (Ministry of Education, 2008)

It can be concluded that the curriculum enhancing grade 7 students’ aesthetic sense and art learning substance is important as well as necessary for student development, since it could develop the students’ attributes in aesthetic sense. The curriculum includes feasibility in both theory and practice which could be applied as the model of development in students’ aesthetic sense for those who are interested in it.

## Conflict of Interests

The author(s) have not declared any conflict of interests.

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*Full Length Research Paper*

# Teacher behaviours observed by teacher candidates throughout their primary and secondary school years

Semra Güven

Gazi University, Gazi Faculty of Education, Department of Educational Sciences, Ankara, Turkey.

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**The aim of this study is to determine the positive/negative teacher behaviours which teacher candidates observed during their primary and secondary school years and the effects of these behaviours on themselves. The research was conducted in the spring term of 2012-2013 academic year with 88 teacher candidates (52 females and 36 males), studying in Gazi University. In the study, qualitative research method was used. When obtained findings were analysed, positive teacher behaviours, which teacher candidates remembered, fell into the categories of providing with motivation and self-confidence, tolerance, patience, listening and caring, reinforcing, egalitarian attitudes, positive warning, encouraging, mediation and problem solving. So as to negative teacher behaviours, they fell into the categories of physical punishment, insulting and humiliating, scolding, blaming, discriminatory and indifferent attitudes, negative warning and authoritative attitudes. In addition, in the study, it was found out that teacher candidates were influenced by positive/negative teacher behaviours, which they observed, in different ways.**

**Key words:** Teacher behaviour, teacher candidates, primary education, secondary education.

## INTRODUCTION

Today, students, attending primary and secondary schools spend most of their time at schools. School is an essential education institution in individuals' lives and their socialisation processes. In this respect, communication of school administrators, teachers and other school staff with students and their attitudes towards them are of quite importance. Especially in this process, responsibilities of teachers who personally interact with students at school and in the classrooms, in a position of role models, become even more important. Emotional and social relationships between teachers and students are the determining factor on the achievement of

teaching activities (Yılmaz and Tosun 2013). A teacher's personality, professional competences, values, perspectives on life and attitudes towards students may influence students in different ways with regard to students' academic achievements, getting prepared for life, building up positive/negative behaviours and attitudes and developing personally and socially.

Some of the competences, which teachers must have, are content knowledge, professional teaching knowledge and general knowledge. However teachers' affective responses, especially their attitudes towards their profession matter as well as these competences (Semerci and

E mail: [semraguven1@gmail.com](mailto:semraguven1@gmail.com).

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Semerci, 2004). The impact of teachers' geniality and leading personality is important to communicate with students and lead them through guiding. A teacher has to display exceptional empathy, persistence, diligence, sincerity, research orientation, honesty and flexibility as a person (Mehdipour and Balaramulu 2013). Teachers who like their profession and beloved by students may have an effect on students in many aspects (Gurbetoğlu and Tomakin, 2011).

Teachers are evaluated in terms of their positive/negative attitudes and behaviours towards students as well as the effectiveness of their teaching. Relationships between a teacher and his/her students in the classroom form the basis for learning and education. In case these relationships based upon words and actions are good, a positive learning atmosphere is created in the classroom; otherwise the learning atmosphere is destroyed gradually and educational objectives cannot be achieved (Kılıç et al., 2004).

Teachers have some duties, which have to be fulfilled at the professional level, such as establishing a healthy and effective communication with students in their classrooms, building up and managing ideal learning environments, enabling students to learn and executing assessment and evaluation activities. If teachers carry out these duties, which have to be fulfilled, together with the values such as affection, respect, tolerance and fairness, they will have collaborated to develop students' positive feelings. If teachers are able to increase the affection of their students for them, positive instructional outcomes are likely to occur (Banfield et al., 2006). But if teachers attempt to maintain their tasks with an authoritative and repressive attitude, this may lead to the emergence of some unintended consequences for students such as anxiety, hesitation, reluctance to learn, developing negative feelings against the teacher. Students have the intention of expressing teachers' negative behaviours towards themselves as "violence". According to the study carried out by the Ministry of National Education in Turkey (2008) with the purpose of determining primary and secondary school students' perceptions of the notion "violence" and the factors, which lead them to violence, it was observed that students perceive violence as being exposed to unkind treatments and asperity. Students perceive squabble, interruption, sniping, mocking, being angry and teachers' similar behaviours as violence to a lesser extent (MEB, EARGED 2008).

In literature, there are studies related to teacher behaviours in classroom environment such as undesired teacher behaviours (Banfield et al., 2006), the influence of teachers' profiles on student motivation (Güzel et al., 2010), effective teacher behaviours (Şahin, 2011), popular and unpopular teacher behaviours (Gurbetlioğlu and Tomakin, 2011), bad teacher and good teacher

(Suplicz, 2009). In this study, positive/negative teacher behaviours and the effects of these behaviours on students were dwelled on.

### **Purpose of the study**

The aim of the study is to determine positive/negative teacher behaviours which teacher candidates observed throughout their primary and secondary school years and the effects of these behaviours on themselves.

### **METHODOLOGY**

In this section of the study, research design, working group, data collection and data analysis are discussed.

#### **Research design**

This research is designed within the frame of qualitative research. The qualitative research method can be defined as a strategy which specifies the approach of the research and leads the various stages of it to be consistent with the frame of this approach (Yıldırım and Şimşek, 2008). The most explicit feature of qualitative research is enabling a deep analysis on events, cases, norms and values from the point of people who participate in the research. Elaborating jargons, concepts, and notions that participants use, understanding them and trying to find out what these mean to the people in the research is a critical working strategy (Ekiz, 2004). In the study, historical research method was utilized as one of the qualitative research methods. Historical research seeks an answer to the question "what happened in the past" regarding the focused problem through reading the documents of the inquired time span or interviews with people, who experienced the past events (Büyükoztürk et al., 2008). In the study, biographic research design was utilized within the scope of historical research. Biographic research is a method including the scrutinising of individuals' experiences and their personal and subjective perceptions based on their life stories (Erol et al., 2010). Researching Life Stories reflects critically and pragmatically upon the use of life stories in social and educational research (Lawthom et al., 2004). In this study, in order to depict the positive and negative teacher behaviours which teacher candidates experienced and observed during their primary and secondary school years and the effects of these behaviours on themselves, stories covering the events, which teacher candidates lived in the past were utilized.

#### **Study group**

The study was conducted in the spring term of 2012-2013 academic year with totally 88 volunteer teacher candidates (TC1, TC2, TC3 .....TC88) who study in Gazi University Gazi Education Faculty. The working group consists of 3<sup>rd</sup> and 4<sup>th</sup> graders and 52 (59.09%) female and 36 (40.90%) male.

#### **Data collection**

In the study, document analysis technique, as one of the data

collection methods of the qualitative research was utilized. Document analysis consists of the analysis of written materials, including information about targeted fact or facts to research (Yıldırım and Şimşek, 2008).

In this study, teacher candidates were asked to write about positive and negative teacher behaviours, which they experienced in the classroom environments during their primary and secondary school years and the effects of these behaviours for themselves. Teacher candidates were asked to write about their experiences in detail depending on their own wills. They were ensured that written documents would be kept in strict confidence and the names of the institutions and persons wouldn't be shared with third parties. In the study, documents provided by teacher candidates and collected by the researcher were used as data source.

With the purpose of collecting qualitative data in the study, an interview form, consisting of two open-ended questions was prepared for teacher candidates and getting expert opinions ensured the content validity of the form. The purpose of using open-ended questions in the research is to enable teacher candidates to answer the questions more flexibly. Teacher candidates were asked to give written answers to the questions in the form. Answering process of teacher candidates, who participate in the research, lasted 25-30 minutes on average. The questions in the form which were addressed to teacher candidates are as follows:

1. Write two examples of positive/negative teacher behaviours, which you remember that you experienced throughout your primary and secondary school years.
2. Write positive/negative effects of these behaviours on you.

#### Data analysis

In this study, content analysis as one of the qualitative data analysis methods was used. Content analysis can be defined as a renewable and systematic technique which enables some words of a text to be summed up by more content categories with codifications based on certain rules (Büyükoztürk et al. 2012). The principal process in content analysis is to bring together the data, similar to each other within the scope of certain concepts and themes and interpret the data by organizing it in a way to enable readers to understand (Yıldırım and Şimşek, 2008). In this study, case studies obtained from teacher candidates in writing were analysed by considering the stages followed in the course of content analysis. First, coding process was conducted based on the concepts obtained from the qualitative data. Similar concepts were categorised by being gathered and obtained data was analysed under these categories. Besides, in order to provide the reliability of the study, evaluations of two subject matter experts were taken into consideration. Seeing that there was a similarity between the evaluations of the subject matter experts and the researcher, it aimed to ensure the reliability of the research by reducing the margin of error stemming from the researcher.

#### FINDINGS

Findings obtained as a result of analysis and evaluation of teacher candidates' answers to the questions asked in the research.

#### Teacher Candidates' Views on Positive Teacher

#### Behaviours Which They Observed Throughout Their Primary and Secondary School Years and the Effects of These Behaviours

After analysing teacher candidates' answers related to positive teacher behaviours, which they observed throughout their primary and secondary school years, seen that positive teacher behaviours fall into the categories as follows.

**Providing with motivation and self-confidence:** This category includes teacher behaviours such as helping students study and make use of their spare time, enabling them to think that they can "achieve" "do" something, giving attention to introverted and self-contained students, making students feel that they are trusted, enabling students to know where and how to start to survive the hardship, allocating responsibilities, appealing to students' interests and talents.

**Tolerance, patience, listening and caring:** This category includes teacher behaviours such as giving importance to students' opinions, going over the topics which students have difficulty in understanding, listening to students' problems in a friendly manner and producing solutions, not dwelling on students' misbehaviours so much, communicating with students considering their age characteristics.

**Reinforcement:** This category includes teacher behaviours such as giving feedback to positive and proper behaviours by saying well done, smiling, giving points, trying to eliminate disturbing situations in the classroom and being a role model with his/her words and actions.

**Egalitarian attitude:** This category includes teacher behaviours such as not discriminating students as successful-unsuccessful or good-bad, considering individual differences, giving importance to group works and cooperation, applying rules equally to each student, recognise everyone equally and enabling each student to participate in the decisions.

**Positive warning:** This category includes teacher behaviours such as silently warning a student who displays an undesired behaviour by going up to him/her, enabling a distracted student to be involved in the lesson with good and positive words and naming students.

**Encouragement:** This category includes teacher behaviours such as assisting students to overcome their fears of the course, inspiring students to think that if they work hard they can overcome obstacles easily and encouraging them not to be afraid of sharing proper and nice works with others.

**Mediation and problem solving:** This category includes teacher behaviours such as being neutral, correcting conflicts between individuals or groups in the classroom, supporting the parties of the conflict to solve problems on

their own, helping students develop self-discipline and critical thinking skills and enabling them to make decisions regarding themselves.

Observed that what teacher candidates were influenced related to positive teacher behaviours are capability of succeeding in case of being motivated, being extrovert, having recognised skills, knowing how to overcome obstacles in life, realising mistakes and learning from them, making future plans, instead of thinking about problems in life and being pessimistic, thinking about the good sides of happenings and trying to be happy, knowing that materiality isn't always effective in life, staying away from bad habits, using things with care, cooperating with others and getting along well with friends.

### Some Examples of Teacher Candidates' Statements Related to Positive Teacher Behaviours and the Effects of These Behaviours

*TC6: "I used to have difficulty in mathematics in high school. Our maths teacher used to call me to the chalkboard and ask questions continuously. At recess or in the classroom, everywhere he saw me. One day, he called me and said, "..... these are my most special books and I want you to keep them. From now on, if you study the subjects and examples in these books before you come to lessons, I will be very happy". At first I wasn't happy with my teacher's falling all over me, but later on I enjoyed that. I started working hard to win my teacher's favour. It was certain that he was expecting something from me and I would have never disappointed him. It happened so..."*

The same teacher candidate (**TC6**) indicated the positive effect of teachers' motivating behaviours as follows: *I reached the opinion "I can do everything if I work" instead of the opinion "I can't do this" and my grades went up.*

*TC22: "When I was in 7<sup>th</sup> grade, in the first lesson, my music teacher had sung a folk song after the meeting stage. I guess, I wasn't aware of folk songs until that moment. The next lesson, he told us he would build a chorus with volunteers. My best friends were volunteers who sang short folk songs and they were selected for the chorus. I couldn't dare to sing a song at that moment because I was an introvert. When the lesson was over, as soon as the teacher went out of the classroom, I ran after him and asked, "If I sing the song now, will you accept me to the chorus?" After listening to my short refrain, he said, "Well done, your voice is very beautiful." and until my graduation, I participated in all special ceremonies of our school as a soloist."*

The same teacher candidate (**TC22**) indicated the positive effect of teachers' listening and caring beha-

viours as follows: *"This occasion is the most important factor which provided me to be an extroverted individual who is capable of participating in all activities."*

*TC45: "My English teacher supported me a lot, she has a quite different place in my life. She cleared my fear of failing in English, showed me that English classes weren't actually difficult and proved me that English isn't a lesson to be concerned about by making the learning process enjoyable. I was under the impression that I wouldn't be able to succeed in English classes because I didn't have a good foundation. Thanks to my English teacher, I believed that I would be successful through overcoming all the obstacles. My teacher availed me by enabling me to regain my self-confidence, convincing me that I would overcome all the obstacles and teaching me that I should always think positive, with her words related to the importance of motivation.*

The same teacher candidate (TC45) indicated the positive effect of teachers' behaviours related to making efforts to develop students' self-confidence as follows: *Since then, I have started being successful by thinking about the good sides of happenings instead of thinking about the problems in life and being worried, pessimistic and unsuccessful.*

### Teacher Candidates' Views on Negative Teacher Behaviours Which They Observed Throughout Their Primary and Secondary School Years and the Effects of These Behaviours

After analysing teacher candidates' answers related to negative teacher behaviours, which they observed throughout their primary and secondary school years, seen that negative teacher behaviours fell into the categories as follows.

**Physical punishment:** This category includes teacher behaviours such as slapping in the face, kicking, asking students to beat each other, hitting students' heads on the board, throwing pieces of chalk or erasers at students, pull students' ears and squeezing students' noses.

**Insulting and humiliating:** This category includes teacher behaviours such as saying students' faults to their faces, uttering harsh and mocking words, embarrassing students because of their appearances or failing in classes.

**Scolding and blaming:** This category includes teacher behaviours such as saying some words to students like "stop talking", "you couldn't learn how to shut up", "I'll kick you out of the classroom", "you are such a hopeless case" and disapproving students' exam marks.

**Discriminatory and indifferent attitude:** This category includes teacher behaviours such as labelling students as hardworking and lazy, continually praising some of the

students, smiling at some of the students while glaring at the others, speaking of some students' achievements on and on, teaching lessons with hardworking students, recognizing only successful students and supporting them.

**Negative warning and authoritative attitude:** This category includes teacher behaviours such as mentioning how difficult the subject is at the beginning of the lesson, saying that it would be difficult to solve the problems or the subject wouldn't be understood in case of not listening carefully, being angry when homework hasn't been done, not asking why homework hasn't been done, giving punishment frequently and asking for obedience all the time.

Observed that what teacher candidates were influenced related to negative teacher behaviours are indifference to lessons, alienation from lessons, reluctance to go to school, anxiety, scepticism, temper, tendency to violence, having a desire to disturb the peace in the classroom, getting accustomed to insults, decrease in academic success and being introvert and quiet.

### Some Examples of Teacher Candidates' Statements Related to Negative Teacher Behaviours and the Effects of These Behaviours

**TC35:** *"We had a music teacher in junior high school. In one of our lessons, our teacher suddenly stood up and started to exclaim, "moo". At the same time, he crouched down; he was trying to perform his imitation very realistically. One of the students asked, "sir, why are you doing this?" and the teacher explained, "I imitate your glances during my teaching". All the students had a sudden paroxysm of laughter and naturally so did I. The teacher pointed at me among the laughing students and shouted at me, "you, come here quickly!" And I went to him; no sooner had I said, "yes sir", than I felt the slap in my face. All the students were looking at me as the teacher kept slapping me. I couldn't get over that situation at all. I was embarrassed and I didn't want to look my friends in the face for a while."*

The same teacher candidate (TC35) indicated the negative effect of teachers' behaviours related to physical punishments and humiliations as follows: *"I was good at my lessons, my friends used to like me, but my experience of that day alienated me from my school, lessons and even my friends. As a result, I got lower marks in my exams. Most of all, my fear of taking the floor during the class, which I still experience, has been left from that day."*

**TC65:** *"I was in 7<sup>th</sup> grade. As usual, in verbal lessons, I was a silent and calm student who never used to*

*comment or participate in the classroom activities, but listen. On the other hand, the results that I got in written exams were much better than my performance in the classroom. Although I could answer the questions in written exams, in case a teacher asked me a question while teaching a lesson, I used to become tongue-tied and wasn't able to give an answer to the question. I generally knew the answer, but failed at expressing myself. My history teacher didn't want to understand my situation. He didn't believe me and thus, he used to belittle and scold me. Even after holding a written exam, he didn't believe that I could get that good mark in the examination. He asked me a sudden question again. I was shocked again and failed to give an answer to the question. He scolded me very angrily and told me that I was cheating during the exam. I was shaking from fear and giving the answer to the question in a low voice. My friends heard me and told our teacher that I knew the answer of the question, but this time, he scolded my friends and me again. I felt degraded a lot on that day. I was accused unjustly."*

The same teacher candidate (TC65) indicated the negative effect of teachers' blaming words as follows: *"Over the years, whenever I see a history book, I remember that day and feel so sad. My in-class performance decreased in other classes too for a long time after this sad experience."*

**TC28:** *"I was in 8<sup>th</sup> grade in junior high school. We would celebrate our form teacher's Teachers' Day on 24<sup>th</sup> November together with my eight friends. On that day, we learnt where our form teacher was and went to her. We caught up with her before she got out of the classroom. All of us shook hands with her and celebrated her Teachers' Day, but she wasn't interested in us. She had her eyes on the door as if she was waiting for someone else. Then, a girl from our class came into the classroom. Our teacher left us, went to her and said, "I have been waiting for you for a long time, where have you been". From that moment on, our teacher started talking to her. She pretended as if we weren't there. Her behaviour made us perplexed. Some of us were angry and left the room. Our teacher's behaviour made me upset. From that day on, I started thinking that we didn't carry so much weight with our teacher. Only that girl was important for our form teacher. When she smiled at me, she was no longer believable to me."*

The same teacher candidate (TC28) indicated the negative effect of teachers' discriminatory attitudes as follows: *"Years passed and now, I am a teacher candidate, too. I still haven't forgotten my teacher's discriminatory attitude. Actually, my teacher had set me a good example with that behaviour. By experiencing that, I learnt that teachers shouldn't discriminate between their students."*

## DISCUSSION

In this section, findings procured related to teacher candidates' views on positive/negative teacher behaviours, which they observed throughout their primary and secondary school years and their effects, are discussed.

### Discussion on positive teacher behaviours and the effects of these behaviours

When participating teacher candidates' views on positive teacher behaviours were analysed, observed that one of the categories of positive teacher behaviours is "motivating students and providing them with self-confidence". Motivation is a concept related to students' willingness to use their skills, make an effort and spend time on the tasks which they are expected to perform. Students' motivations depend on (a) their expectations for success (b) their assessments related to benefits provided by success and (c) to what extent, learning environments meet their physical, emotional and social needs (Ergün, 2014). It is especially important for primary and secondary school students to be motivated by their teachers in terms of developing positive behaviours. The most important duty expected from teachers is to enable students to develop positive behaviours by motivating them (Emir and Kanlı, 2009). A student's motivation for a lesson with the help of his/her teacher may also have a positive effect on his/her attitude towards that lesson. According to the findings of the research done by Uçgun (2013); found out that there is a moderate, positive and significant relationship between the teachers' level of motivating their students and students' attitudes towards Turkish classes. Yet, teachers may fail to motivate students and enable them to participate in the classroom activities from time to time even though they want it thoroughly. According to the findings of a research conducted by Uçar (2010) with RCMK (Religion Culture and Moral Knowledge) teachers (n=70) and 6<sup>th</sup> and 7<sup>th</sup> graders (n=613), majority of Religion Culture and Moral Knowledge Teachers cannot succeed to keep the students' interests alive, ensure the continuity of motivation and the full participation of the students to the extent that they will. According to the students, the motivation applications of Religion Culture and Moral Knowledge Teachers are at the middle level. Being motivated by their teachers will also facilitate students to grow as self-confident individuals. The dimension of self-confidence refers to the extent of students considering themselves talented and valuable (Deniz et al., 2006). Self-confident students realize what they can do and achieve by knowing and believing in themselves. In this study, it is determined that being motivated by their teachers enables students to develop self-confidence and

contributes to them to be disposed to succeed.

In this study, another category title, which positive teacher behaviours fall into, is "tolerance, patience, listening and caring". Tolerance is a functional communication process created with unconditional affection, respect, trust and caring in order to understand and accept all kinds of emotions, opinions and behaviours of people which we find close or aloof to ourselves (Büyükkaragöz and Kesici, 1996). Tolerance is opposite to prejudice in many respects (Kouchok, 2008). Since especially primary and secondary education years are an important period of time to adopt tolerance as a value, teachers' tolerant, patient and understanding behaviours will affect students in a positive way. In order to spend a happy life together, people should show tolerance towards each other's differences and mistakes and understand each other (Çalışkan and Sağlam, 2012). Getting more efficiency in a classroom environment where tolerance is settled is most likely to happen.

Other categories, which teacher candidates' observations of positive teacher behaviours during their primary and secondary school years fall into, are "reinforcement", "egalitarian attitude", "positive warning" and "encouragement". Each behaviour, which is related to these categories, is a teacher behaviour that can affect students in a positive way. For example, (in case of a teacher) to use reinforces such as giving feedback to a student's positive behaviours by saying well done, giving points and trying to eliminate situations which disturb students will contribute to students to understand and learn the subject. In this respect, teachers are required to use grade level appropriate reinforces when necessary to encourage especially shy and introverted students and enable them to participate in the class activities (Sönmez, 1993). In his research, which he analysed the relationships between the reinforces which teachers use immediately, students' motivations and their levels of learning, Chistophel (1990) found out that reinforces, which teachers use immediately. Have a positive impact on students' motivations and their levels of learning. According to research done by Mirzeoğlu et al. (2007), it can be said that there is a significant difference between the groups taught with and without reinforcing and feedback in terms of psychomotor domain.

In this study, another category title, which positive teacher behaviours fall into, is "mediation and problem solving". Smith and Sidwell define mediation as a helping process of third parties by using their conflict resolution and communication skills to correct conflicts experienced between two or more persons (Koruklu, 2006). Teachers can occasionally hold a mediatory position in case of conflicts between students in the classroom or in the school. In this study, teacher candidates indicated teacher behaviours like neutrality and conflict resolution between students or groups who cannot get along well

with each other as positive teacher behaviours.

### **Discussion on negative teacher behaviours and the effects of these behaviours**

When participating teacher candidates' views on negative teacher behaviours were analysed; observed that one of the categories of negative teacher behaviours is "physical punishment". Physical punishment is a false step no matter who inflicts it; either by parents at home or teachers and other staff at school. Inflicting physical punishments on students in school environment stems from the teachers' inefficacy of classroom management and discipline. Yet there are quite a few alternative tools which teachers can utilise to discipline students and manage the classroom (Laurence and Yuan, 2010). Discipline is required to enable students to obey the school rules. But using physical punishment to discipline students may do more harm than good (Kilimci, 2009). Being exposed to physical violence by teachers causes students to exhibit false behaviours and use violence. It is very likely for the students who are subjected to or witness violence to develop symptoms of anxiety, lack of self-esteem, and excessive guilt and this situation effects their psychosocial and educational development indirectly (Bulut 2008). According to the findings of a research named "Physical Punishment Implementations in Secondary Education Institutions" done by Mahiroğlu and Buluç (2003) observed that physical punishment is not a fair punishment, does not correct undesired behaviours and causes new problems to emerge, leads students to develop negative attitudes towards school and classes and causes them to be hurt psychologically and physically.

In this study, it is determined that inflicting physical punishment on students causes them to be affected adversely (indifference to lessons, reluctance to go to school, being introvert and quiet etc.). In his study named perception of reward and punishment at secondary education institutions, Tetik (2013) states that as well as the positive effects of beating, humiliating, scolding and insulting for students is temporary and low, its negative effects are dominant and inflicting physical punishment is useless. Nevertheless, as seen in this study, observed that teachers occasionally inflict physical punishments on their students. According to one of the findings of the research done by Apaydın and Manolova (2015) teachers inflict psychological punishments on their students more. This result supports the finding of this study in this particular.

Other categories, which teacher candidates' observations of negative teacher behaviours during their primary and secondary school years fall into, are "insulting and humiliating", "scolding and blaming", "discriminatory and

indifferent attitude" and "negative warning and authoritative attitude". Each behaviour, which is related to these categories, is a teacher behaviour, which is dishonourable, humiliating and trivializing and that can affect students in a negative way. It is necessary to avoid verbal expressions that might be mocking, humiliating or insulting. Even if these kinds of words produce quick fixes, they can cause students to alienate from lessons and teachers and become introverts (Tetik, 2013). In this study, it is determined that humiliating words and indifferent and authoritative attitudes of teachers cause students to have negative feelings and thoughts (temper, tendency to violence, getting accustomed to insulting messages etc.).

### **Conclusion**

In this study, which analyses positive/negative teacher behaviours which teacher candidates observed throughout their primary and secondary school years and the effects of these behaviours on themselves, it is seen that positive teacher behaviours fall into categories such as providing with motivation and self-confidence, tolerance, patience, listening and caring, reinforcing, egalitarian attitude, positive warning, encouraging, mediation and problem solving. In parallel with this situation it is found out that teacher candidates were influenced by their teachers' positive behaviours affirmatively. Observed that knowing that being successful is possible when motivated, realizing how to overcome difficulties and obstacles, realizing mistakes and learning from them, staying away from bad habits, using things with care, cooperating with others are among the topics which teacher candidates were influenced by their teachers affirmatively.

In this study, it is observed that the negative teacher behaviours indicated by teacher candidates fall into the categories of physical punishment, insulting and humiliating, scolding and blaming, discriminatory and indifferent attitude, negative warning and authoritative attitude. In the study, concluded that indifference to lessons, reluctance to go to school, anxiety, temper, tendency to violence, having a desire to disturb the peace in the classroom, being introvert and quiet are among the topics which teacher candidates were influenced by their teachers adversely.

### **RECOMMENDATIONS**

Based on the findings obtained during the research, with the purpose of getting efficiency from teaching activities and enabling students to succeed, some recommendations related to teacher behaviours are as follows:

1. Teachers should pay attention to their behaviours so as to motivate students and provide them with self-confidence.
2. Teachers should include some activities in their teaching processes more such as using reinforces, adopting egalitarian attitudes among students and encouraging them.
3. Teachers should be aware that they affect students in a positive way by acting unbiased when they hold a mediatory position between students to correct conflicts between them.
4. Teachers should avoid physical or similar punishments since they are role models to students.
5. Teachers should realize how they can manage the classroom and discipline their students, how they can communicate with them, how they can prepare them for lessons and life, how they can assist them to have self-confidence and do useful things and which teacher behaviours affect them in a positive or negative way.

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*Full Length Research Paper*

# Factors affecting the Mathematics achievement of Turkish students in PISA 2012

Şengül Uysal

The Ministry of Education, Turkey.

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**This study aims to analyze the effect of variables determining mathematics interest, mathematics self-concept, mathematics anxiety, teacher-student relation, classroom management and sense of belonging on the Mathematics achievement of Turkish students in the Programme for International Student Assessment (PISA) 2012. Structural equation modeling (SEM) was employed in this research study. The research population is represented by 15 year 3 month and 16 year 2 month old students receiving education in Turkey. The research sample, on the other hand, is composed of 4848 students randomly selected from 170 schools in 12 geographical regions where PISA is implemented. When the Mathematical structural equation model is analyzed, it has been seen that there is a medium and positive relationship between mathematics achievement and mathematics interest of students with mathematics self-concept. It has also been determined that the variable mathematics anxiety has a negative and medium effect on mathematics achievement. According to the results of the research study there is no meaningful relationship between variables of teacher-student relation, classroom management, sense of belonging and mathematics achievement of Turkish students.**

**Key words:** PISA 2012, Mathematics literacy, structural equation model.

## INTRODUCTION

In the aftermath of the OECD (2013) report, the Programme for International Student Assessment (PISA 2012) examination has initiated a debate in the media, among academics and practitioners on the causes of the results and the consequences. The average performance of Turkish students was relatively poor when it is compared to other OECD countries in the three literacy areas (reading, mathematics and science). PISA, the most reliable index assessing the performance of educational systems, aims to evaluate the knowledge and skills of 15 year old students in reading, mathematics

and science literacy. PISA assesses that the educational systems in terms of quality, equity and efficiency and analyses how students participate in modern societies using the acquired knowledge and skills. This approach reflects the fact that modern societies evaluate individuals not only by the knowledge they acquired but also what they can do with it (OECD, 2013a). Besides this, PISA collects "rich" data from both students, parents, teachers and schools in order to establish a model showing all related variables and processes influence. In other words, it supplies the data related to factors

E-mail: [uysalsengul@yahoo.com.tr](mailto:uysalsengul@yahoo.com.tr). Tel: 5057155453.

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supposed to effect the achievement of students including family resources, learning environment and student belief and motivation. PISA student questionnaire includes six main titles; personal information, family and home, mathematics experiences, school, learning mathematics and problem solving experiences (OECD, 2013b).

PISA in 2012 focused on mathematics literacy. Mathematics literacy is the ability of an individual to formulate, employ and interpret in different contexts. In other words, an individual is able to use mathematics knowledge sources and tools for reasoning and predicting the formulation deeply. There are many potential factors affecting achievement differences in large scale testing. Joshi (1998) proposed an academic achievement model to explain for mathematics learning and achievement in Nepal. The model includes two basic parts. One of them is personal factors (gender, age, prior knowledge, motivation) and the other is environmental factors (learning environment at school, at home and among peers). Besides this, Carroll (1982) focused on students intrinsic abilities to learn. According to Coleman et al.'s model, school policy matters are directly affecting the achievement of students. Walberg's educational productivity theory (1981) suggested nine variables (motivation, classroom environment, quality of instruction, home environment...) that have positive effects on academic achievement. In 2007, Adeyemo and Adetona stated several detrimental factors (self-efficacy, anxiety, self-concept) for academic achievement (Lai, 2008).

Reviewing the literature on mathematics achievement, the potential factors affecting the performance of students can be put into a range of list. For Zhao (2011), stated factors could be classified as individual variables, such as mathematics anxiety (Meece et al., 1990); background variables, such as family socio-economic status (Sirin, 2005); learning environment variables, such as teacher quality and time investment (Stigler et al., 1999). Student personal attitudes towards mathematics, classroom climate, mathematics anxiety (Lewis and Aiken, 1970; Engelhard, 2001), teaching methods (Matt and et al., 2011), self-concept (Marsh and Hau, 2004), sense of belonging (Goodenow, 1993; Voekl, 1995), teacher-students relation (Smith et al., 1978) and interest (Heinze et al., 2005) are the factors mostly stated and implied in research studies. In this research study individual variables (mathematics self-concept, mathematics interest, mathematics anxiety), teacher student relation, classroom management and sense of belonging are included as latent variables.

Academic self- concept can be described as individuals' knowledge and perceptions about their academic achievement on a particular area (Wigfield and Karpathian, 1991). Students with positive self-concept have a higher motivation and can perform better (Stipek, 1998). Some researchers stated that there is a positive relationship between self- concept and mathematics achievement depending on the results of the studies

carried at different schools in different countries (Dermitzaki et al., 2009). Bandura (1997) implied that self-concept of individuals influences their choices, because individuals prefer the areas in which they believe they succeed with a high level of self-confidence. In addition, the higher the self-concept is the higher the effort and persistence is. Many students have difficulties in learning at school not because they have not got the capacity but they think they are incapable and cannot succeed (Obilor, 2011).

Another variable taken into account for students in PISA 2012 is mathematics interest. It is clear that students' interest or academic motivation increases their performance. Students who like or find mathematics interesting are likely to excel in it (Deci and Ryan, 2002). Students' mathematics interest and motivation to learn affects each other mutually in a positive way. Therefore, it is crucial to support and develop their positive attitudes towards any academic subject (Pintrich, 1999).

Krapp (1992) and Prenzel (1988) stated that a concept of interest and motivation can be described as a relationship between an individual (learner) and an object (learning topic). In this theoretical context, it has to be differentiated between a current situational relation to an object and the interest in an object. Lewalter et al. (1998) implied that conditions of school instruction are fostering individual interest and motivation. This depends on the particular teacher who is responsible for organizing teaching and learning in the classroom. Moreover, interest and motivation can lead to the development of an orientation of interest towards a school subject ( Heinze et al., 2005:213).

Mathematics anxiety is one of the factors that affect individual's performance. The relationship between anxiety and performance is analyzed in different titles, such as test anxiety (Bodas and Ollendick, 2005) or mathematics anxiety (Engelhard, 2001). Mathematics anxiety can be defined as a fear that has a negative relationship with performance (Whyte, 2009). Studies point out that mathematics anxiety is associated with several factors ranging from environmental factors such as family pressure for higher achievement, to intellectual factors as learning styles or to personality factors such as low self- esteem (Uusimaki and Nason, 2004; Woodard, 2004). Negative school experiences such as teachers' threatening and authoritarian attitudes might also contribute to the development of mathematics anxiety (Bursal and Paznokas, 2006). The research studies about mathematics anxiety reveal the fact that while the mathematics life and experiences increases the level of anxiety decreases (Ruffell, Mason and Barbara, 1998). For Lee (2009), the statistically analysis of PISA 2003 data states that mathematics anxiety is distinguishable from mathematics self-concept and mathematics self-efficacy. He added that in New Zealand, students with high mathematics achievement have a lower mathematics anxiety.

Previous studies that employed cross-cultural data have documented moderate sizes of correlations in the relationship between math performance and math self-concept, math interest and math anxiety. Marsh et al. (2006) carried out a study in 25 countries and found that cross-cultural invariant correlations between mathematics self concept and mathematics achievement is moderate and in a positive way. In a meta-analysis by Ma (1999), a similar size (but negative) is reported as the population correlation on the relationship between mathematics performance and mathematics anxiety. Another meta-analysis on mathematics anxiety (Hembree, 1990) shows slightly stronger correlations for students.

For years, international student assessment projects, PISA and TIMSS have supplied a rich data for national and international comparative analyses of student performances. By this way, it is possible to see strengths and weaknesses of educational systems. This paper contributes to the related literature by providing a detailed analysis of Turkish students' individual achievement in the mathematics literacy of PISA 2012 examining the various factors which influenced it. Turkish students' achievement in PISA is considerably lower than other countries. It is thought to be crucial to supply findings to take precautions needed for better academic achievement. The author also postulates the results to be informative for other countries. It is aimed to analyze the effect of variables determining students' mathematics interest, mathematics self-concept, mathematics anxiety, teacher-student relation, classroom management and sense of belonging on the mathematics achievement of Turkish students in the Programme for International Student Assessment (PISA) 2012.

## METHOD

Structural equation modeling (SEM) was employed in this research study. Structural equation modeling is a comprehensive statistical approach to test hypotheses about relations among observed and latent variables (Hoyle, 1995). For MacCallum and Austin (2000) SEM tests hypothesized patterns of directional and non-directional relationships among a set of observed (measured) and unobserved (latent) variables. SEM has got two goals; to understand the patterns of correlation/covariance among a set of variables and to explain as much of their variance as possible with the model specified. SEM includes variation, co-variation, confirmatory factor analyses and regression in order to analyse the relationship between variables (Kleine, 2005).

### *Data and Sampling of the Research*

The data are sourced from PISA 2012 in which all 34 OECD member countries and 31 partner countries and economies participated, representing more than 80% of the world economy. Around 510 000 students between the ages of 15 years 3 months and 16 years 2 months completed the assessment in 2012, representing about 28 million 15-year-olds in the schools of the 65

participating countries and economies. The research population is represented by 15 year 3 month and 16 year 2 month old students receiving education in Turkey. The research sample, on the other hand, is composed of 4848 students randomly selected from 170 schools in 12 geographical regions where PISA is implemented. PISA is an assessment of domains such as reading, mathematical, and scientific literacy. In addition to content assessments, PISA includes student, parents, and school surveys that have questions related to students' and parents' background, students' attitude towards reading and information and communication technologies. The data were obtained from both the mathematics literacy test and students surveys of PISA 2012.

### *The analysis of the data*

In the proposed structural model (Figure 1), the variables of mathematics interest, mathematics self- concept, mathematics anxiety, teacher-student relation, classroom management and sense of belonging are hypothesized to have direct effects on mathematics achievement in PISA. To reduce the length of the test, PISA applied matrix sampling, which splits one long test booklet into several short test booklets. Therefore, each student works on one booklet only. Because students complete different tests, mathematics achievement cannot be obtained using traditional test scores, but instead by using plausible values. For Ma et al. (2008, 59-110).

Plausible values are multiple imputations of unobservable latent achievement for each student. Simply put, plausible values are some kind of student ability estimates. Instead of obtaining a point-estimate for student ability, which is a traditional test score for each student, an estimated probability distribution was derived empirically from the observed values on students' tests and their background variables. Plausible values then are drawn at random from this probability distribution for each student.

Plausible values are multiple estimates of individual student performance that enable group-level estimates of performance. Plausible values are used because PISA sample members did not take the full battery of assessment items (each student was given a subset of items). In the case of PISA 2013, five plausible values were computed for each student respondent, indicating possible "true" values of the student's score on the underlying conceptual dimension. Plausible values for Mathematics literacy were coded as PV1 Mathematics, PV2 Mathematics, PV3 Mathematics, PV4 Mathematics and PV5 Mathematics.

Initially the questions in the questionnaire were determined through basic components paraphrasing factors analysis so as to determine the factors influential over mathematics achievement. Prior to the analysis of the data, reverse coding was observed in some data and the data were rearranged by the researcher through recoding, and the data were checked for suitability for factors analysis via Kaiser- Meyer- Olkin (KMO) coefficient in addition to Barlett Sphericity test. The factor loads of the questions formed for this purpose and the specific values of the factors were then studied on SPSS 15.0 package program. The coefficient of internal consistency Croanbach Alpha Value calculated for latent variables. Then the structural equation model was established.

Prior to Exploratory factor analysis (EFA), the Kaiser- Meyer- Olkin measure of sampling (KMO-test) was applied. The value of KMO was calculated as 0.92. The sample is adequate if the value of KMO is greater than 0.5 (Field, 2000: 446). For these data Barlett's test is significant ( $p < 0.01$ ) and therefore factor analysis is appropriate. Not all of the questions in the questionnaire were taken into consideration in the research and only those questions with the most factor load were included in the research. The most significant

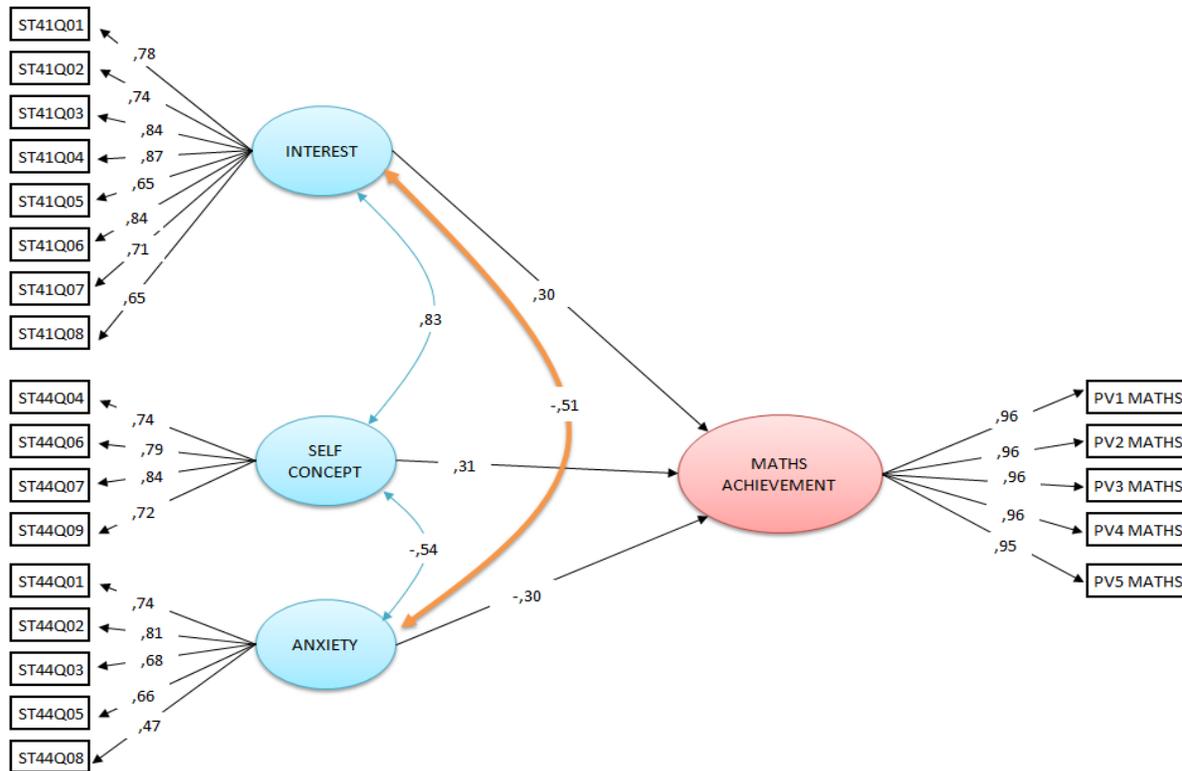


Figure 1. Structural equation model (SEM).

criterion here was use of at least three questions for each dimension (Schumacher and Lomax, 1996). After the analysis, the items were collected under 6 factors. The total variant value these six factors could explain was 61.28. The results of EFA are stated in Table 1. The value for factor loading cut-off is determined as 0.50 and the value for the double-loading item is determined as 0.10. ST35Q04 of which factor loading was less than factor loading cut-off (0.50) and ST37Q08 which has double loading were extracted (Çokluk et al., 2001). Categories of PISA overlap factors of the EFA to a large extent. The communalities were found in the range of 0.34 and 0.79. The highest loading on the factor is 0.85 while the smallest is 0.53.

The coefficient of internal consistency Croanbach Alpha value calculated for entire independent variables is 0.82, suggesting that the items have relatively high internal consistency (Note that a reliability coefficient of 0.70 or higher is considered "acceptable" in most social science research situations) (Table 2). For each factor the coefficient of internal consistency Croanbach Alpha value was calculated for mathematics interest as 0.92; for mathematics self-concept as 0.85; for mathematics anxiety as 0.84; for sense of belonging as 0.80; for teacher-student relation as 0.84 and for classroom management as 0.78 (Table 3). As a result of two consistency analysis, upper 27% and lower 27% of the group point have shown that there is a significant difference for all items ( $p < .01$ ).

## FINDINGS

The findings made out of the analysis of the data have been stated in this section of the research. In the proposed model one dependent latent variable (mathe-

matics literacy/achievement) and three independent latent variables (mathematics interest, mathematics self-concept, mathematics anxiety) were used. In Figure 1 the proposed structural equation model (SEM) was stated.

The standardized regression analysis of structural equation model was stated (Figure 1). Prior to SEM, ST44Q02 was excluded because of the high covariance error (T44Q02 following the analysis of the table of standardized covariance variables (Tabachnick and Fidel, 2001). For Kline (2005) standardized coefficients around 0.30 are considered medium. When the Mathematical structural equation modeling is analyzed, it has been determined that the variables 'mathematics interest' and 'mathematics self-concept' have a medium and positive effect on mathematics achievement ( $\beta = 0.30$ ,  $p < .01$ ;  $\beta = 0.31$ ,  $p < .01$ ). Besides this, the variable 'mathematics anxiety' has a negative and medium effect on mathematics achievement ( $\beta = -0.30$ ,  $p < .01$ ). The negative value of the standardized regression coefficient of the regression equation means that 1.00 unit increase in students' 'mathematics anxiety' level causes 30 unit decrease in students' mathematics achievement scores. On the other hand, there is no meaningful relationship between variables of 'teacher-student relationship ( $t = 0.71$ ,  $p > 0.05$ )', 'classroom management ( $t = 0.47$ ,  $p > 0.05$ )', 'sense of belongings' ( $t = 0.12$ ,  $p > 0.05$ ) and students' mathematics achievement, that's why they were not stated in the model.

**Table 1.** Exploratory factor analysis (EFA).

	Factor loading					
	1	2	3	4	5	6
ST41Q07	.81	-.11	.03	.04	.11	.09
ST41Q02	.81	-.13	.05	.10	.12	.03
ST41Q05	.80	-.04	.08	.09	.05	.05
ST41Q08	.78	-.03	.07	.06	.08	.07
ST41Q06	.71	-.19	.02	.09	.37	.08
ST41Q04	.65	-.28	.01	.12	.47	.10
ST41Q03	.63	-.24	.03	.15	.43	.13
ST41Q01	.62	-.19	.00	.07	.42	.05
ST44Q03	-.16	.76	-.01	-.04	-.21	.00
ST44Q01	-.11	.73	-.01	-.01	-.28	.01
ST44Q08	-.15	.73	-.06	-.05	-.02	-.02
ST44Q02	-.25	.72	-.02	-.01	-.33	-.02
ST44Q05	-.15	.72	.00	-.09	.02	-.03
ST44Q10	.00	.58	-.00	.00	-.08	-.01
ST37Q06	.01	-.23	.71	.00	-.20	-.03
ST37Q03	.09	.07	.69	.10	.11	.08
ST37Q01	-.05	-.24	.68	-.00	-.15	-.02
ST37Q07	.17	.10	.65	.11	.08	.06
ST37Q05	-.03	.09	.65	.04	.24	.03
ST37Q02	-.04	.09	.64	.09	.22	.07
ST37Q04	.02	-.28	.59	.06	-.30	-.06
ST37Q09	.14	.04	.53	.25	-.04	.16
ST28Q03	.10	-.04	.09	.79	.01	.13
ST28Q04	.05	-.05	.13	.78	.06	.17
ST28Q01	.05	-.01	.05	.75	.11	.16
ST28Q05	.131	-.07	.14	.73	.00	.10
ST28Q02	.091	-.03	.07	.72	.05	.06
ST44Q09	.269	-.16	.02	.07	.71	.03
ST44Q06	.343	-.27	.05	.05	.66	.07
ST44Q04	.325	-.27	.06	.07	.64	.09
ST44Q05	.492	-.23	.00	.06	.63	.05
ST35Q02	.104	-.01	.08	.21	.09	.85
ST35Q01	.101	-.04	.03	.20	.12	.81

The goodness of fit statistics used in the evaluation of model suitability and the values calculated are stated in Table 4. The consistency index results of the structural equation modeling have been analyzed using  $\chi^2/df$ , GFI, AGFI, NFI, CFI and RMSEA values in order to evaluate the suitability between the model and the data. At the end of the analysis  $\chi^2/df$ , GFI, AGFI, NFI, CFI and RMSEA values were calculated as 3.69, 0.96, 0.90, 0.95, 0.95 and 0.04 respectively. Kleine (2005) stated that  $\chi^2/df$  rate being 3 and less shows a good suitability while the value of 5 and less is evaluated as quite sufficient

(Sümer, 2000; Şimşek, 2007). For Hooper et al. (2008) the GFI and AGFI consistency index values which are higher than 0.90 show a good suitability. Jöreskog and Sorbon (1993) stated that RMSEA value being 0.05 and lower shows a perfect model data suitability. Hu and Bentler (1999) specified that NFI AND CFI consistency index values over 0.95 show a perfect suitability. In this research study CFI consistency index value of the model which is 0.95 shows a perfect suitability.

## DISCUSSION

In this study it was aimed to analyze Turkish students' individual achievement in mathematics literacy of PISA 2012 examining six independent latent variables (mathematics interest, mathematics anxiety, self-concept, sense of belongings, teacher-student relation and classroom management). For this purpose, a structural equation model was established.

When the Mathematical structural equation model is analyzed, it has been seen that there is a medium and positive relationship between mathematics achievement and mathematics interest of students. This result is similar to some findings stated in the literature. There are some studies that give a correlation between Mathematics achievement and interest. Schiefele et al. (1993) stated an average correlation (0.30) between them (Heinze et al., 2005). High interest in mathematics was shown to correlate with mathematics achievement in Taiwan, Japan and the United States (Evans et al., 2002). Similarly, there is a positive and medium correlation (between 0.25-0.35) between academic achievement and interest according to some other research results (Eccles et al., 1993; Marsh et al., 2005). On the other hand, Köller et al. (2001) showed that subject interest in mathematics had no significant influence on achievement. It is important to discuss what shapes students' interest. Brophy (2000) states that teachers' expectations play a crucial role in students' achievement because it predicts the level of interest (Wentzel, 2002). It is possible to tell that mathematics interest behaving as a crucial and internal motivator increases mathematics achievement. Therefore, it could be concluded that teaching behaviors which encourage students to learn more and motivate their mathematics interest will increase their achievement at mathematics.

The other result of the research study is that the independent latent variable 'mathematics self-concept' has a medium and positive effect on mathematics achievement. According to Bandura (1977), people's belief of personal efficacy affects almost everything they do (p.19). Much of the early literature investigating the relation between academic self-concept and academic achievement demonstrated that higher levels of academic

**Table 2.** Survey items and latent variables.

Observed variables – item coding at PISA database	Scales	Latent variables
ST41Q01 I enjoy reading about mathematics.		
ST41Q02 Making an effort in mathematics is worth it because it will help me in the work that I want to do later on.		
ST41Q03 I look forward to my mathematics lessons.		
ST41Q04 I do mathematics because I enjoy it.		
ST41Q05 Learning mathematics is worthwhile for me because it will improve my career prospects chances.	Strongly Agree (1)	
ST41Q06 I am interested in the things I learn in mathematics. ST41Q07 Mathematics is an important subject for me because I need it for what I want to study later on.	Agree (2)	
	Disagree (3)	
	Strongly Disagree (4)	Mathematics Interest
ST41Q08 I will learn many things in mathematics that will help me get a job.		
ST44Q04 I get good grades in mathematics.		
ST44Q06 I learn mathematics quickly.		
ST44Q07 I have always believed that mathematics is one of my best subjects.	Strongly Agree (1)	
ST44Q09 In my mathematics class I understand even the most difficult work.	Agree (2)	
	Disagree (3)	Mathematics Self-Concept
	Strongly Disagree (4)	
ST44Q01 I often worry that it will be difficult for me in mathematics classes.		
ST44Q02 I am just not good at mathematics.		
ST44Q03 I get very tense when I have to do mathematics homework.	Strongly Agree (1)	
ST44Q05 I get very nervous doing mathematics problems.	Agree (2)	
ST44Q08 I feel helpless when doing a mathematics problem.	Disagree (3)	Mathematics Anxiety
ST44Q10 I worry that I will get poor grades in mathematics.	Strongly Disagree (4)	
ST28Q01 The teacher shows an interest in every student's learning.		
ST28Q02 The teacher gives extra help when students need it.		
ST2803 The teacher helps students with their learning. ST2804 The teacher continues teaching until the students understand.	Every Lesson (1)	
ST28Q05 The teacher gives students an opportunity to express opinions.	Most Lessons (2)	
	Some Lessons (3)	Teacher Student Relation
	Never Or Hardly Ever (4)	
ST35Q01 My teacher gets students to listen to him or her.	Strongly Agree (1)	
ST35Q02 My teacher keeps the class orderly.	Agree (2)	
ST35Q03 My teacher starts lessons on time.	Disagree (3)	Classroom Management
	Strongly Disagree (4)	
ST37Q01 I feel like an outsider (or left out of things) at school. ST37Q02 I make friends easily at school.		
ST37Q03 I feel like I belong at school.		
ST37Q04 I feel awkward and out of place in my school. ST37Q05 Other students seem to like me.	Strongly Agree (1)	
ST37Q06 I feel lonely at school.	Agree (2)	
ST37Q07 I feel happy at school.	Disagree (3)	Sense Of Belonging; Students Attitudes Towards School
ST37Q09 I am satisfied with my school.	Strongly Disagree (4)	

Source: Student Questionnaire, PISA 2012.

self-concept were associated with higher levels of achievement (Marsh and Craven, 1997). In their meta-

analysis, Hansford and Hattie (1982) reported that the average correlation between measures of general self-

**Table 3.** Cronbach alpha coefficient for Independent latent variables.

Latent variables	Cronbach alpha value
Mathematics interest	0.92
Mathematics self-concept	0.85
Mathematics anxiety	0.84
Sense of belongings	0.80
Teacher student relationship	0.84
Classroom management	0.78

**Table 4.** The consistency index values of the model.

x2/sd	GFI	AGFI	NFI	CFI	RMSEA
3.69	0.96	0.90	0.95	0.95	0.04

concept and academic achievement was moderately low but positive (0.21). Furthermore, Kiamanesh and Kheirieh (2011) implied that Iranian students who have high level of mathematics self-concept could do better at mathematics. They added that the correlation between them is positive and significant. Törnross et al. (2006) studied on PISA and reported that self-concept had a stronger effect on mathematics achievement than motivation and anxiety in mathematics. Some studies showed that academic self-concept was called as a distinctive factor across cultures (Corbiere et al., 2006; Marsh and Byrne, 1993; Chong and Michael, 2000). Briefly, self-concept may play important roles in learning because they provide the foundation for motivation and influence the level of effort and persistence a student applies to performing a task and reaching a particular outcome.

It has been also determined that the variable 'mathematics anxiety' has a negative and medium effect on mathematics achievement. In a meta-analysis by Ma (1999), a similar size of correlation (-0.27) is reported as the population correlation on the relationship between math performance and math anxiety. Lafferty (1996) and Miller (1991) worked with elementary school students and found that those with higher achievement in mathematics had lower degrees of anxiety for mathematics. Townsend et al. (1998) reason that low achievement increases students fear and anxiety about mathematics which in turn negatively impacts achievement. Studies show that group work and collaborative learning strategies alleviate mathematics anxiety and have positive impact on students cognitively, emotional and socially (Gresham et al., 1997; Townsend et al., 1998). In addition, students with anxiety in mathematics may develop negative attitudes and negative self-concept which causes lower academic achievement (Fennema, 1989). Subsequently, students may feel helpless and this, in turn, can affect

their motivation and success in mathematics. Remembering the fact that examination and failure anxiety causes low academic achievement, it is possible to propose an evaluation based on students' performance homework, projects and participation in class rather than strict ruled written examinations. It is clear that all these factors stated above are also interrelated- for example, failure related anxiety may reduce interest and motivation, but can also reinforce motivation allowing a person to invest more work to avoid failure ( Pekrun et al., 2002). As reported by Macher et al. (2012), students with higher levels of interest in a subject invest more time and effort in learning, apply more effective learning strategies, and achieve better results.

According to the results of the research study there is no meaningful relationship between variables of 'teacher-student relation', 'classroom management', 'sense of belonging' and mathematics achievement of Turkish students. Previous studies have found that the correlation between academic achievement and sense of belonging is moderate – generally between 0.25 and 0.30 (Goodenow, 1993; Voelkl, 1995). In some respects this result is surprising. It is indisputable that teachers play a crucial role in a effective and qualified education. Well classroom management is a perquisite for effective teaching and learning. For some researchers a safe and orderly classroom atmosphere is a necessity (Marzano, 2003). According to Marzano (2003), a qualified teacher uses effective classroom management strategies.

PISA is a tool for monitoring and evaluating a country's education performance and equity. Yüksel –Şahin (2008) stated that Turkish students having difficulty with problem solving in PISA 2003 reported higher mathematics anxiety compared to other OECD countries. In 2007 these findings were thought to be alarming in Turkey and decided to revise the curriculum. The ministry of Education is to take precautions to live up to demands of the global competition. Policymakers, academics and researchers are the stakeholders of education. Policymakers should be wise to draw conclusions from the results of scientific researches using international test score reports. It is possible to propose a partnership model of decision making regarding curriculum and assessment including teachers. Reimers and Reimers (2014.4) state that the highest performing countries allocate resources equitably across schools, give teachers and principals autonomy over curriculum and assessment, and engage all stakeholders in education including students-e.g. Japan and Portugal have reformed curriculum to align it with students interests.

Besides this, teachers need to develop skills that help students have higher interest and lower academic anxiety. The general idea is that teacher attitudes motivate or demotivate students. It is crucial to discuss to what extent teacher competences that contribute to

student achievement and how to create programs for teachers supporting their professional development. Similarly, Sami (2013) implied that the principal factor explaining Korean students' success is equity in educational opportunities. She added that Korean teacher training programs followed by continuous teacher support and professional development is another key factor in the same area. For Simola (2005), the most efficient factor explaining the success of Finland at PISA is teacher; hence teacher training policies.

In summary, some of the results of this study have been surprising and somewhat contradictory to that of previous research results. The present study offers a general conclusion of the three closely related independent variables (mathematics interest, mathematics anxiety, self-concept) while there is no meaningful relationship between variables of 'teacher-student relation', 'classroom management', 'sense of belonging' and mathematics achievement of Turkish students. It is possible to tell that teachers are closely related to learning outcomes, which suggest that teacher training should include not only instructional knowledge but also how to create a good atmosphere supporting students' academic achievement. The problem of teacher quality and the impact of it on students' achievement with teacher training policies are discussed among academics, educators and practitioners. Due to Turkish students' poor mathematics achievement at PISA, further researches are needed to analyze the role of teachers. Further conceptualization and knowledge looking into the matter in different ways are essential to determine the factors that have the greatest impact on student achievement. The ministry of education may cooperate with universities to understand the reasons behind the success of top countries at PISA and apply different efforts made to develop mathematics education in Turkey. Application of projects keeping the level teacher education qualification high and being able to recruit motivation of students may offer an opportunity to develop the performance of students.

### Conflict of Interests

The author has not declared any conflict of interests.

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*Full Length Research Paper*

# Development of an effective school-based financial management profile in Malaysia: The Delphi method application

Norfariza Mohd Radzi\*, Muhammad Faizal A. Ghani and Saedah Siraj

Faculty of Education, University of Malaya, 50603, Kuala Lumpur, Malaysia.

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The agenda for national development requires a persistent improvement in education as a tool for creating knowledgeable human capital, highly skilled labour, a high technology society and ultimately a highly civilized nation for the future challenging world. It requires considerable financial and technical investment as well as effective and efficient public administration to realize these aims. The persistent actions by the Federal Government and the Ministry of Education in Malaysia throughout the past decades to enhance the quality of school financial management were portrayed in the country's national master plans such as the Education Development Master Plan (PIPP) 2006-2010, the Tenth Malaysia Plan 2010-2015 and the Malaysia Education Blueprint (PPPM) 2013-2025. Among the strategies focused on upgrading education and curriculum delivery is to improve the effectiveness and efficiency of educational financial management as a vital part of educational administration. The latest Tenth Malaysia Plan 2010-2015 was formed with the objective of revamping the education system in order to significantly raise student outcomes. As an innovative approach to realize the effectiveness of knowledge delivery, public-private partnerships have been established for pre-school and primary and secondary education which allow for significant autonomy for school managers.

**Key words:** Financial management, education, student outcomes, Malaysia.

## INTRODUCTION

The financial decentralization reform in Malaysia began within the public sectors, specifically the Government's departments and agencies, with the introduction of the Responsibility Centre or the so-called Pusat Tanggungjawab (PTj) in 1989. It was intended as an effort to bring autonomy to lower level management in managing the allocated financial resources from the traditional style of bureaucracy in the government's

department. Starting in 2001, the Ministry of Education formally directed approximately 200 schools annually (primary and secondary) to be upgraded to PTj schools with 230 schools recognized as PTj schools in 2003 (Kementerian Pelajaran Malaysia, 2003). In general, the PTj schools in Malaysia have autonomy over their financial resources allocated within certain boundaries of regulation imposed on them by the government. They are

\*Corresponding author. E-mail: [norfariza@um.edu.my](mailto:norfariza@um.edu.my). Tel: +6019-2501519. Fax: +603-79565506.

required to utilize the money in accordance with the Guidelines for School Financial Management and Accounting book produced by the Ministry of Education, Education (Accounts and Audit Rules) 1962, which was produced under the Education Act of 1996, the Financial Act of 1957 and the Treasury Directive.

The school financial decentralization reform in Malaysia was then further enhanced through the Education Development Master Plan, also called *Pelan Induk Pembangunan Pendidikan (PIPP) 2006-2010* (Kementerian Pelajaran Malaysia, 2006). In line with Chapter 9 of PIPP 2006-2010, Cluster Schools of Excellence were first established in Malaysia. This designation was granted to a group of High Achieving schools. Cluster school is a brand given to schools identified as being excellent in its cluster for various aspect of performance including school administration, academic, sports and extra-curricular activities. Among the main purposes of the establishment of Cluster schools was to accelerate the excellence of schools in the Malaysian education system. The concept of decentralization has led Cluster schools to better empowerment through the provision of guided autonomy in five main areas, which are school management, human resource management, financial resource and physical resource management, curriculum management and co-curriculum management and implementation.

For over a decade of the implementation of school-based financial management (SBFM) of much development in the education sector in Malaysia, there are still significant weaknesses that require development and quality improvement at the school level. Even though financial autonomy was granted to selected schools that have shown excellent financial performance, research shows that certain schools still suffer non-compliance audit reports, problems of misallocation of money and unskilled principals and teachers in organizing the school financial management (Saiman, 2004; Marzuki, 2006; Idris, 2002; Zu Che Soh, 2008). Another issue was the failure of some principals to allocate resources based on school objectives and priorities. The Malaysian School Audit Division has reported that some principals failed to list their school objectives based on priorities and provide a proper strategic plan (Kementerian Pelajaran Malaysia, 2007). Thus, this study will be significant in terms of providing guidance to all school leaders experiencing the financial decentralization reform. It proposes the strategic and effective financial management practices as complementary to other existing references. The Ministry of Education and the State Educational Department could use the recommendations of this study to upgrade the necessary modules in the provision of management training to school leaders. Therefore, the aim of this study is to develop a profile of effective school-based

financial management in Malaysia based on the Delphi method. The profile consists of both the elements and practices as described in the following research objectives:

- a) To design lists of elements of effective school-based financial management in Malaysia in agreement with the highest consensus among experts; and
- b) To design lists of practices of effective school-based financial management in Malaysia in agreement with the highest consensus among experts.

## RESEARCH FRAMEWORK

The framework of this study is based on two models, which are the Financial and Resource Management Cycle in an Open System of Educational Organization by Levacic (2000), and the Dick et al. (2009). A Financial and Resource Management Cycle model mainly reflects the nature of an open system organization which includes the rational and natural system perspective as well (Levacic, 2000). In this system of education organization, four key processes identified in the financial and resource management were (i) obtaining resources; (ii) allocating resources; (iii) using resources; and (iv) evaluating the past use of resources and feedback of this information for future decision making. The process of obtaining resources frequently involves money received from government and also donations, fund raising, fees charged for educational services and any other minor sources. The money received will be used to provide for necessary resources for the educational environment in the form of direct payment for teaching activities or supporting tools for education to take place (Anderson et al., 2001; Levacic, 2000).

Initially, planning and budgeting will determine the way schools allocate their financial and physical resources. It is considered an important part in the school-based management process as the leaders are responsible for utilizing their financial autonomy to reach effective management. Then, the money and resources will be used to produce the intermediate output such as the physical environment, administrative services and other services directly for the educational output and outcomes through educational activities (Levacic, 2000). The last concept in the process is the evaluation and feedback on the past use of financial and physical resources. This process will determine the ability of schools to achieve educational goals either in measurable or intangible outputs. In addition, the evaluation process also determines the schools' effectiveness, efficiency, equity and value for money in order for them to have better planning for the next financial and resource

management cycle. All four of these concepts then become a sequential cycle which is repeated throughout the school life and process (Levacic, 2000).

Another model is the Dick et al. instructional design model presented by Walter et al. (2009). This model provides the framework for a model development as reflected in the fundamental design process used in business, government and military training. The model begins with the analysis of the ultimate goals of developing the instruction and the final aim that we want the learners or users of the instruction to be able to do. After that, instructional analysis and analysis of learners and contexts could be done simultaneously as the designer determines the step-by-step process in order to reach the previous goals stated. Then, the designer will develop assessment instruments and continue with the next step of developing the instructional strategy. Development of instructional strategy could be based on current theories, research, and characteristics of the medium that will be used to deliver the instructions, users and also the content of instruction of the profile that will be developed (Dick et al., 2009). Following the completion of design and development of the instructions, a series of evaluations will be conducted to provide information useful for improving the instructions.

## METHOD

The Delphi method has been applied in this research, which involved several rounds of study to gain a consensus from the expert group. Generally, Linstone and Turoff (1975) have described Delphi as a method for structuring a group communication process that will become an effective process in allowing a group of individuals to deal with a complex problem. It involves several rounds of data collection through questionnaires in order to find the consensus among the participants or experts who are selected based on specific criteria. The Delphi method has been chosen due to its strength and compatibility in terms of validity and reliability. It is known to be a powerful technique when being used to seek answers for the appropriate questions that require in depth explanation and judgements from the experts (Gordon, 2008). Furthermore, this method also has its validity and reliability provided that is applied with the necessary methodological rigor and with a good knowledge of the social medium in which it is being applied (Landeta, 2006).

The application of the Delphi method involved three rounds of data collection to reach the final content of an effective school-based financial management profile. The first round involved an interview session with fifteen people who were selected as a group of experts for this study. They were expected to answer the semi-structured interview questions which then provided input for the development of an effective school-based financial management profile in Malaysia. Basically, the data in the first round session were analysed qualitatively to provide findings that became constructs for the questionnaire in the second round of study. Then, questionnaires were prepared and distributed to the same participants in the first round with the aim of obtaining consensus among them on the content of the profile. In addition to the items listed by the researcher in the questionnaire, participants were

given opportunity to suggest any additional items to improve the content of the profile. It gave them chances to add any extra items that they may have missed during the previous interview session. These additional items then appeared in the third round of this study in addition to the initial items that had been analysed. At this stage, participants typically gave their agreement on the analysed items from the previous round of questionnaire. Thus, the Delphi method was completed and the items finalized from these three rounds became content for the effective school-based financial management profile in Malaysia.

In terms of validity and reliability, the interview protocol was initially validated by an expert in the area of school finance and qualitative study. Then, a pilot study was conducted to check the reliability of the questions in the interview protocol. This was to ensure that the interview reflected the main research questions and was able to generate accurate data for the research findings. Furthermore, the transcripts produced in the transcription process were also verified by the participants. The participants had to examine the contents of the transcripts and corrected any mistakes that could change the meaning of statements in the original interview that had been conducted. In the second round, questionnaires containing the practices of effective school-based financial management were distributed to all participants to gauge their approval on each item. It was then followed by the third round survey in order to get the highest consensus from all experts on the contents of the profile. Based on three rounds of studies, the Delphi method managed to achieve reliability in its findings. All the experts were given the opportunity to improve the profile before reaching the highest consensus for the final answers in the third round of study.

The decision on the number of participants was made based on review of past literature as suggested by several prominent researchers of the Delphi method. Linstone and Turoff (1975) suggested between 5 to 10 experts in order to reach the specific objectives of the study. However, Gordon (2008) stated that the usual numbers of experts selected are between 15 to 35 people to comprehensive and reliable research findings. Considering the related factors, the researcher decided to select 15 experts in the area of school finance in Malaysia. The 15 experts consisted of 2 academicians from public higher learning institutions (IPTA) who have expertise in the area of school finance, 2 academicians from Institut Aminuddin Baki (IAB), Genting Highland, which is the training institute for management and educational leadership in Malaysia, 3 auditors from the Internal Audit Division, Ministry of Education, 5 excellent principals, 2 excellent head teachers from schools with high performance in school financial management and 1 school inspectorate who specializes in monitoring the subject of Accounting.

This study has used the purposeful sampling procedure with a combination of both theorists and practitioners to ensure comprehensive and meaningful research findings. Careful consideration also has been taken in the selection of the experts. Skulmoski et al. (2007) have suggested participants with wide knowledge and experience in the area being researched, capacity and willingness to participate, sufficient time for the study and also communication skills. Hence, 15 individuals from various jobs that consist of both theorists and practitioners have been identified. They were believed to have ability in providing credible data and information. The selection of the experts in this study was made based on the following criteria:

- (i) The individual has experience, knowledge and skill in the area of school finance of more than 10 years;
- (ii) The individual has been working in school and involved in the school financial management for more than 10 years; and

**Table 1.** Table for inter quartile range score.

Consensus level	Inter quartile range (IQR)
High consensus	0.00 – 1.00
Moderate consensus	1.01 – 1.99
No consensus	2.00 and above

(iii) The individual is ready and capable to join 2 or more rounds of the Delphi method.

Data analysis in this study involved both qualitative and quantitative data analysis. The data for interview sessions in the first round were analysed using thematic qualitative data analysis. The analysis done in the first round of study was of utmost importance since the results would become the basis for the construction of questionnaires for the subsequent round of studies. In the second and the third round of the Delphi method, quantitative data analysis was applied by using descriptive statistics in the form of Measures of Central Tendency. Mode and median were initially calculated to rate the average scale of answers responded by all experts whereas Inter Quartile Range (IQR) was used to measure the consensus of all experts on the listed items. The results of the IQR were interpreted based on three categories as recommended by Siraj (2008) and Radzi (2014). Table 1 shows the level of consensus based on the Inter Quartile Range score.

Following the analysis of the second round, the items listed in the profile were then reshuffled to reflect the degree of consensus on the items by all experts. The item with the highest consensus, mode and median was listed at the top followed by items with lower measurement of IQR, mode and median. However, all items were maintained in the third round questionnaire to allow an opportunity for the experts to reconsider their opinion and make improvements on the results if necessary.

The questionnaire prepared in the third round consists of additional items recommended by the experts in addition to the original items analysed in the second round. Similar analysis was done including the measurement of mode, median and Inter Quartile Range with the purpose of finding the results. However, additional analysis was carried out which was the analysis of Wilcoxon signed-rank test.

The Wilcoxon signed-rank test analysis is a non-parametric test which does not assume normality in the data. It has a similar aim as the analysis by *t*-test, which is to find any significant differences in the answers of respondents or any change from one time point to another. In this study, the analysis of Wilcoxon signed-rank test was applied for the purpose of identifying the consistency level of the experts' opinion for both the second and third round of study and to identify any significant differences in their opinions. The Wilcoxon signed-rank test was measured by the Z score which would identify whether there was 'no significant difference' or there were 'significant differences' in the results of both rounds by the experts. As suggested by Alias (2010) and Hussein (2008), the Z score between 0 to -1.99 indicated no significant difference on the answers given by the experts between the second round and third round.

Nevertheless, between the two rounds, the Z score of -2.00 and more signalled significant differences in the experts' answers. In other words, the experts were not consistent in their opinions and had significant differences in their answers.

## RESULTS

The three rounds of studies undertaken using the Delphi method have resulted in three different findings in accordance with the analysis that has been done. However, the results in the preceding round were incorporated in the subsequent round in order to reach the final content of the profile. For the first round, the analysis done from the interview sessions with all participants has led to 4 main financial management functions and 13 elements incorporated in all the main functions. The main school-based financial management functions are planning, financial acceptance, acquisition and disbursement and finally the control and evaluation process. Furthermore, 126 practices have been listed from the suggestions by all the experts. The findings are described as follows (Table 2).

Data in the second round of the Delphi method were obtained from questionnaires distributed to all 15 members of the group of experts. The questionnaire listed the 126 practices suggested in the profile of effective school-based financial management in Malaysia according to the specific financial management elements and main functions. The experts were required to indicate their level of agreement as measured by a five-point Likert scale, consisting of totally disagree, disagree, somewhat agree, agree and totally agree. From the analysis that has been done, there were 118 items that obtained high consensus from all the experts, with an interquartile range between 0 to 1.99. Of these 118 items, only 8 items received a median of 4 while the rest managed to get 5 indicating the highest level for the median range. In addition, nearly all of these high consensus items also have a mode of 5, with the exception of only two items with mode of 4. Furthermore, the findings show that the 8 items that obtained no consensus from the panel of experts are items 9, 18, 28, 32, 49, 86, 116 and 126. All of these items received an Inter Quartile Range measure of 2, except for item 32 with an interquartile range of 4. No item was considered to fall under the moderate consensus level. The findings for the second round also received a suggestion for one additional item in the elements of the Role of Financial Planner. The item is 'PTA is empowered with authority in planning the PTA fund'. Besides that, 6 items received suggestions for some sentence modification by members of the expert panel, namely item 51, 54, 56, 68, 69 and item 116.

Following the analysis done for the second round, the findings then were used for the preparation of a questionnaire for the third round of the Delphi method. From 127 items listed in the questionnaire, 126 managed to attain a high consensus from all experts and only 1 item received no consensus from them. Item no 33, which stated that 'PTA is empowered with controlled

**Table 2.** School-Based Financial Management Main Functions, Elements and Practices Identified in the First Round of Delphi Method.

Main functions	Elements	Number of practices
<b>1. Planning</b>	School vision and mission establishment	9
	Financial purposes	9
	School finance organizational structure	10
	Role of financial planner	4
	Budget management procedures	10
<b>2. Financial acceptance</b>	School financial sources	7
	Financial acceptance procedures	8
<b>3. Acquisition and disbursement</b>	Acquisition and disbursement authority	13
	Acquisition and disbursement procedures	8
<b>4. Control and evaluation</b>	School financial reference	8
	Financial control authority	9
	Financial control procedures	21
	Financial management effectiveness measures	10
<b>Total</b>		126

authority in the overall school financial planning process', received no consensus from the experts. Exactly 118 items stated received an Inter Quartile Range of 0 whereas only 8 items received an Inter Quartile Range of 1. Furthermore, measurement for the median also brought a supportive result with 124 items managing to get a median of 5 and only 3 items obtained a median of 4. It was similar for the mode measurement, as 124 items managed to get a mode of 5 and only items no. 9, 42 and 43 had a mode of 4. Overall, the findings for the third round succeeded in reaching the highest consensus among the experts before it ended. All the items then were finalized to become the content for the profile of effective school-based financial management in Malaysia.

Another finding in the third round of the Delphi method is the result of the Wilcoxon matched-pair sign test through the measurement of Z score. Any Z score of less than -1.99 indicated no significant difference between the answers for the second round and third round, whereas a Z score of -2.00 or more signalled a significant difference between these two rounds of studies. Based on the analysis, there were 37 items considered to have significance differences between the answers for the two rounds of studies. The 37 items were derived from all 13 elements included in the questionnaire which had been distributed. The changes and significant differences in the answers for the 37 items were due to the opportunity given to the experts to reconsider their previous answers in the second round of the Delphi method. Furthermore, in the third round, they were also provided with information on the mode of answers from all experts in the previous round for them to improve and reach

consensus on the best answers. Nevertheless, all these significant changes managed to minimize the Inter Quartile Range for most items in the third round, which lead to the final content of the profile of effective school-based financial management in Malaysia. Further descriptions of all the profile's items will be discussed in the following section while the details of results for the second and third round of Delphi method are included in the appendices part of this article.

## DISCUSSION

The application of the Delphi method has succeeded in developing the profile for effective school-based financial management in Malaysia with three rounds of studies. The total of fifteen experts consisted of both theorists and practitioners, who had a high consensus on 13 school-based financial management elements and 126 practices in the profile. Obviously, the findings of this research did support and enhance the theoretical concept underlying the model of Financial and Resource Management Cycle in an Open System of Educational Organization by Levacic (2000). List of practices was designed according to several elements classified under four functions of (i) financial planning (ii) financial acceptance (iii) acquisition and disbursement; and (iv) control and evaluation. Furthermore, the findings of this study corresponded to the influence of school financial resources towards educational outcomes. As presented in the profile, school's financial management effectiveness could be measured in several forms of evaluation such as the students' achievement, school's excellent awards and others.

## **Function of planning**

### ***Element of school vision and mission establishment***

Among the core elements under the function of financial planning is the school vision and mission establishment in agreement with Cheng (1996). Vision reflects the long-term aspiration of the school whereas mission will identify the necessary strategies to realize the school's long-term vision. Based on these research findings, experts have reached a high consensus that school vision and mission should be based on government aspirations and accompanied with high expectation by all members. Thus, the established vision and mission statements should be easily understood and become guidance for school members in planning for focused school finance. Good school vision and mission will drive school members to improve the school financial plan and direct the school resources toward the achievement of the stated vision and mission.

### ***Element of financial purposes***

In order to be effective in school financial planning, a school should be clear on the directions of its flow of money and the purposes of its financial expenditure (Cheng, 1996). Basically, school financial resources should serve the main purpose of education, which is to develop human capital for future preparation of the country's skilled workers. Furthermore, school leaders have to be proactive in using funds for improving various skills and capabilities of school teachers or current staff, particularly in relation to teaching and learning activities. In addition, school finance should be channelled to fulfil the government policy regarding education financial expenses and to realize the school's short-term and long-term goals in accordance with the school's stated vision and mission.

### ***Element of school finance organizational structure***

The process of financial planning should be conducted by a well-organized school financial structure or related support committees at the school level. There are several important people who should be included on the financial committees as suggested by the panel of experts, such as principal, assistant principals, senior teachers and several other administrative staff members. In order to ensure more effective school-based financial management, schools should consider establishing a School Asset Disposal Committee, School Asset Management and Inventory Committee, School Development Committee and School Price Quotation Committee. It is

also necessary for schools to form their Key Performance Index (KPI) Committee to manage the financial allocations for achieving the school KPI, especially for Cluster schools or the high performing schools/Sekolah Berprestasi Tinggi (SBT).

### ***Element of role of financial planner***

Planning involves the responsibility of the relevant school community to play their role as the school financial planner. The concept of school-based financial management for financial planning considers teachers' view, with the Head of Department as the leader of the team's decision making. Therefore, the responsibility and accountability were shared among the relevant school members instead of sole dependency on the principal or head teacher. It reflects autonomy and empowerment granted at the school level by the higher authority as recommended by Brown (1990) and Swartz (2010). In addition, it was agreed that the members of the Parent Teacher Association (PTA) are empowered with authority in planning the PTA funds only. They are responsible for planning and monitoring any of their children's school activities financed by the PTA fund without interrupting the financial management of other school funds.

### ***Element of budget management procedures***

In order to plan for using school funds effectively, there are certain budget management procedures that need to be followed (Jabatan Audit Negara Malaysia, 2008). Basically, the procedures have to meet the agreed standards stipulated by the Ministry of Education and the State Education Department in addition to other approaches to ensure a smooth financial management flow. Primarily, the budget preparation should be based on the expected financial allocation that will be received by school. It includes money derived from government grants, income from public sources and any other expected income obtained from school business activities and so on.

## **Function of financial acceptance**

### ***Element of school financial sources***

The concept of school-based financial management highlights the community participation in supporting the school activities and operations. It could be attained from monetary and non-monetary contributions given by the community, including societies, corporate or business entities. Business or corporate firms typically receive

advantages in the form of tax-deductions for financial contributions to public organizations as suggested by Bray (1998) and Burrup et al. (1996). This deduction encourages participation by private entities and supports their involvement in the country's development and welfare. However, parents, through Parent-Teacher Associations (PTA) should take the initiative in supporting their children's education experiences through monetary or non-monetary contributions, as suggested Alam (2008). For well-established schools, alumni participation could be strengthened to increase the school's financial resources or any support activities that could benefit students in the long run. In addition, the growing interest in entrepreneurship culture at schools also enables schools to increase their financial resources. Schools receive income from rental activities, small business and commercialization of goods produced by school members as described in several local studies in Malaysia (Maszuria Adam et al., 2008; Muhammad et al., 2009; Shahril@Charil Marzuki, 2008).

#### ***Element of financial acceptance procedures***

The acceptance of money should be conducted systematically by following certain rules and regulations imposed by the government through the State Education Department. It is essential for the purpose of subsequent control and evaluation and the financial reporting requirement imposed by the government on any public entities. Acceptance of money from the public should be with the knowledge and permission of the State Education Department. A special authorization letter is granted by the principal/head teacher for teachers or any staff members to collect public money such as tuition fees, additional payments for activities and so on. Then, the acceptance of money should be recorded based on a specific account and group of funds by the authoritative staffs. Every acceptance of money should be followed by the issuance of a receipt as a proof of transaction and future reference for reporting purposes.

#### **Function of acquisition and disbursement**

##### ***Element of acquisition and disbursement authority***

The element of acquisition and disbursement authority describes the way public schools spend their financial funds in accordance to their power and autonomy. To be more specific, schools' acquisition and disbursement processes should in line with the targeted objectives as well as following the regulations imposed by the higher authority of government. The most vital part of this

element is the practice of spending the school financial resources in an optimum way. Optimum is defined as the ability of a school to fully utilize its funds according to the agreed financial plan for the purpose of maximizing benefits to the school community. Thus, the school budget should provide guidance for any expenditure during the period of the school financial year. Alteration of financial allocations shall only be made following the specific important needs within the higher authority's approval and consent such as the State Education Department.

#### ***Element of acquisition and disbursement procedures***

Acquisition and disbursement procedures in school should primarily in accordance with the book of Guidance on Financial Management and Accounting of School Funds produced by the Ministry of Education, Malaysia. This book provides procedures and rules as required by the School Audit Division and Internal Audit Division, Ministry of Education. Generally, any staff that acquires materials and goods for the school should complete the acquisition note before any procurement. Once the acquisition note has been approved by the Principal or assistants, the school finance administrative assistant will prepare the Local Order (LO) to the specific supplier as a proof of a school purchase instruction. In some situations, the school prepares price quotations for certain acquisition of expensive resources. The payment will be made once the pre-ordered goods are delivered. The process will be settled by the chief clerk or the specific financial administrative assistant within a stipulated time and following specific procedures.

#### **Function of control and evaluation**

##### ***Element of school financial references***

The school-based financial management concept applied at public schools in Malaysia works within the boundaries of government rules and regulations. Therefore, the guided autonomy granted at the school level in the context of Malaysia's education requires schools to adhere to several important references and guidelines in order to operate effectively. Mainly, schools have to refer to the Financial Procedures Act of 1957 as the premier reference for all government sectors in Malaysia. Other than that, there are the Education Rules (Account and Audit) 2002 under the Education Act of 1996 which is specifically enacted for application by all public education institutions including schools in Malaysia. In addition, the financial management of public schools is also bound by

the rules imposed in the Treasury Directive and any financial circulars and circulars letters by the Treasury Department, Ministry of Education and National Audit Department of Malaysia.

### ***Element of financial control authority***

School financial control is important to ensure effective school financial management, particularly for public schools granted autonomy by the government (Jabatan Audit Negara Malaysia, 2008; Swartz, 2010). The control mechanism acts as monitoring agent for the whole school financial process involving planning, financial acceptance, acquisition and disbursement. As a school manager, the principal or head teacher acts as a financial controller and leads the school monitoring activities. It is recommended that they monitor the school financial records on both a daily and monthly basis to reduce the possibility of mismanagement and misconduct in school financial management.

### ***Element of financial control procedures***

The financial control function at the school level requires the implementation of certain established procedures. This is particularly important for the school-based financial management concept which has a wider scope of tasks and is less dependent on higher authority. The group of experts have a high consensus on the need for schools to establish a systematic internal control system with the participation of related important members. This is important for an organization to reach financial effectiveness, as indicated by Mohd et al. (1999) and Weygandt et al. (1996). Then, schools should also set up their own systematic resource centre to ensure safety and optimization in the use of all public properties and capital assets.

### ***Element of financial management effectiveness measures***

The success of schools in applying the effective practices recommended in the profile could lead to excellent management which will be valued through certain effectiveness measures as suggested by Cheng (1996). In addition, excellent financial performance also acts as a means for further increases in other aspects of school performance such as an increase in the school management quality, supportive teaching and learning environment and eventually students' academic and non-academic achievement. Among the direct indicators of financial management effectiveness is the school's

optimum financial expenditures as planned in the yearly budget. In other words, the school is able to fully utilize the financial funds for that particular year for providing maximum benefit to all the school members. As a result of financial optimization, schools will be able to realize the schools' stated objectives and reduce the issue of insufficient money allocation.

## **CONCLUSION AND IMPLICATIONS**

This study has contributed to the development of an effective school-based financial management profile based on the Malaysian context. It was designed with the aim of fulfilling the needs of a school's stakeholders by providing comprehensive references that are tailored to the new management setting. The profile of effective school-based financial management in Malaysia is organized into four main financial functions, namely planning, financial acceptance, acquisition and disbursement, and control and evaluation. The function of planning consists of five elements: school vision and mission establishment, financial purposes, school finance organizational structure, role of financial planner, and budget management procedures. The function of financial acceptance is composed of two elements: school financial sources and school financial acceptance procedures. The third function is acquisition and disbursement and is also derived from two elements that are elements of acquisition and disbursement authority and acquisition and disbursement procedures. The last function is control and evaluation, which consists of four elements: school financial references, financial control authority, financial control procedures and financial management effectiveness measures

The development of this profile absolutely enriches the current body of knowledge with regards to the school-based financial management literature. It widens the scope of the four main concepts existing in the profile based on the Malaysia's school context. Based on the findings, the effective uses of school funds could bring certain impact on schools conditions, which will eventually improve students' performance. This relationship revealed the importance of school financial planning and decision-making inherent in the autonomy granted at school level. Furthermore, this research brings direct and indirect practical implications to all school members. It is primarily important for school leaders, especially the principal or head teacher managing schools with guided autonomy in Malaysia. It could assist principals on school-based financial management matters that involve the important functions of financial planning, financial acceptance, acquisition and disbursement and also the control and evaluation process. This profile serves as additional important reference for schools such as PTj

schools, Cluster schools and also Sekolah Berprestasi Tinggi (SBT) or high performing schools. It works in parallel with other main references such as Acts, Treasury Directives, circulars and circulars letters and also the book of Guidance on Financial Management and Accounting of School Funds produced by Ministry of Education for all public schools in Malaysia.

This profile highlights the teachers' role in school-based financial management and empowers them with some authority over school financial management. Thus, teachers will have a clear picture of their responsibilities to manage school funds effectively and be accountable to all their duties. This profile could also assist school leaders to improve the quality of their school administration and the overall school performance. Teachers will have better understanding of the need for collaboration and teamwork in the management of school funds in addition to their primary role in the teaching and learning process. The roles of parents have never been stated in any school's action plan except for the policy on the functions of Persatuan Ibu Bapa dan Guru (PIBG) or the Parent Teacher Association (PTA). Thus, this profile is accessible for them and serves as a stimulus for them to bring commitment as school stakeholders.

In addition, parents will have an opportunity to understand the transactions involved in school financial operations to make them more alert about their children's learning needs. This in turn will make them more responsible in committing themselves to school improvement matters to ensure their children's good performance. In addition to parents, this profile could become a blueprint for the community on their commitment to assisting in the public schools' operation. Community participation includes support from the school's surrounding community, societies or non-government organizations, businesses or universities in the form of financial contributions or academic/non-academic collaborations. The community will be alert to the school's expectations for them to improve school performance and the government aspiration to have more participation from private entities. Therefore, effective school-based financial management will be realized with the full understanding, support and participation from all related stakeholders.

### Conflict of Interests

The author(s) have not declared any conflict of interests.

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## Appendices

**Table 3.** Findings for the Second and Third Round of Delphi Method. Function of Planning.

		ROUND 2			ROUND 3				NO SIGN.
		M O D	M E D	I Q R	M O D	M E D	I Q R	Z	
A. PLANNING									
I. School vision and mission establishment									
1.	School vision and mission are based on government aspiration	5	5	0	5	5	0	- 1.000	Yes
2.	School vision and mission establishment are accompanied with high expectation	5	5	0	5	5	0	- 1.414	Yes
3.	Vision and mission statements are easily understood	5	5	1	5	5	0	- 1.732	Yes
4.	School vision and mission are collectively executed	5	5	1	5	5	0	- 1.732	Yes
5.	School vision and mission become guidance for planning a focused school finance	5	5	1	5	5	0	- 2.000	No
6.	School vision and missions drive school members to improve the school financial plan	5	5	1	5	5	0	- 2.000	No
7.	School vision and mission correspond with stakeholders desires	5	5	1	5	5	0	- 1.732	Yes
8.	School vision and mission receive conformity by all school members	5	5	1	5	5	0	- 2.720	No
9.	School vision and mission are established based on school financial position	4	4	2	4	4	1	0.000	Yes
II. Financial purposes									
10.	School finance is used to develop human capital among school members	5	5	0	5	5	0	- 1.732	Yes
11.	School finance is used to buy teaching aids for the school teaching and learning activities.	5	5	1	5	5	0	- 2.000	No
12.	School finance is used to perform activities to reach for school Key Performance Index	5	5	1	5	5	0	- 1.732	Yes
13.	School finance is used to implement high impact programs with low costs	5	4	1	5	5	0	- 2.271	No
14.	School finance is used to fulfill the government policy regarding the education financial expenses.	5	5	1	5	5	0	- 1.732	Yes
15.	School finance is used to realize the school short term and long term goals	5	5	1	5	5	0	- 2.000	No
16.	School finance is channeled to the creation of conducive school surrounding	5	5	1	5	5	0	- 2.264	No
17.	School finance is used to provide for school facilities	5	4	2	5	5	0	- 2.264	No
18.	School finance is used to increase the school performance in its niche area	5	5	1	5	5	1	- 1.414	Yes
III. School finance organizational structure									
19.	Financial organizational structure is headed by Principal/Head Teacher.	5	5	0	5	5	0	- 1.000	Yes
20.	School forms the School Financial Management and Account Committee which consist of Principal, all Assistant Principals, Head of Department, Subject Senior Teachers, Chief Administrative Assistant, Financial Administrative Assistant and Internal Auditor.	5	5	0	5	5	0	- 1.414	Yes
21.	Appointment of Treasurer in PTA organizational structure.	5	5	0	5	5	0	- 1.414	Yes
22.	School forms Asset Disposal Committee.	5	5	0	5	5	0	- 1.342	Yes
23.	School forms Asset Management and Inventory Committee.	5	5	0	5	5	0	- 1.633	Yes

Table 3. Cont'd.

<b>24.</b>	<b>School forms Key Performance Index Committee to manage the financial allocation for Cluster schools.</b>	<b>5</b>	<b>5</b>	<b>1</b>	<b>5</b>	<b>5</b>	<b>0</b>	<b>- 0.557</b>	<b>Yes</b>
<b>25.</b>	School forms School Development Committee.	5	5	1	5	5	0	- 2.000	No
<b>26.</b>	Appointment of Quality Controller among teachers for inspection of the procurement process	4	4	2	5	5	0	- 2.264	No
<b>27.</b>	School forms School Price Quotation Committee.	5	5	1	5	5	0	- 0.272	Yes
<b>28.</b>	Appointment of Financial Committee member in every school project/program.	4 & 5	4	1	5	5	1	- 1.000	Yes
	IV. Role of Financial Planner								
<b>29.</b>	The role of committee in planning the school fund is based on their specific duty.	5	5	1	5	5	0	- 2.000	No
<b>30.</b>	Financial planning considers the teachers' view with Head of Department as the leader.	5	5	1	5	5	0	- 2.000	No
<b>31.</b>	PTA is empowered with authority in planning the PTA fund.	-	-	-	5	5	0	-	
<b>32.</b>	Principal/Head Teacher is the ultimate decision maker for the school budget	5	5	1	5	5	0	- 1.732	Yes
<b>33.</b>	PTA is empowered with controlled authority in the overall school financial planning process.	5	4	4	5	5	3	- 2.032	No
	V. Budget Management Procedure								
<b>34.</b>	The budget preparation is based on the expected financial allocation gained by school	5	5	0	5	5	0	- 1.732	Yes
<b>35.</b>	Budget is prepared at the end of the year before.	5	5	1	5	5	0	- 2.000	No
<b>36.</b>	Analyzing strength, weaknesses, opportunity and threat of school finance	5	5	1	5	5	0	- 2.449	No
<b>37.</b>	The budget format is referred to the previous year budget	5	5	1	5	5	0	- 2.000	No
<b>38.</b>	Tactical planning is made at the department level for the yearly financial allocation	5	5	1	5	5	0	- 2.449	No
<b>39.</b>	The budget format is standardized	5	5	1	5	5	0	- 1.732	Yes
<b>40.</b>	Budget is announced at the early period of school financial year	5	5	1	5	5	0	- 2.000	No
<b>41.</b>	School applies the 'down-top' concept in planning the school fund	4 & 5	4	1	5	5	1	- 1.134	Yes
<b>42.</b>	The financial planning considers the component of input, process and outcome in implementing every school program/project	4	4	1	4	4	1	- 1.732	Yes
<b>43.</b>	The financial planning policy is flexible according to the school needs	4	4	1	4	4	1	- 1.732	Yes

**Table 4.** Findings for the Second and Third Round of Delphi Method (Function of Financial Acceptance).

		ROUND 2			ROUND 3				NO SIGN.
		M O D	M E D	I Q R	M O D	M E D	I Q R	Z	
<b>B. FINANCIAL ACCEPTANCE</b>									
<b>I. School Financial Sources</b>									
44.	Collaboration with potential society/body on school program can reduce the school financial expenses	5	5	1	5	5	0	- 2.530	No
45.	Entrepreneurship culture enable school to increase school financial sources	5	4	1	5	5	0	- 2.640	No
46.	Corporate contribution could increase school financial sources	5	5	1	5	5	0	- 2.000	No
47.	Society's contribution enable school to increase school financial sources	5	5	1	5	5	0	- 2.449	No
48.	PTA's active roles enable school to increase school financial sources	5	5	1	5	5	0	- 2.000	No
49.	Primary school financial sources from Federal Government	5	5	1	5	5	0	- 1.414	Yes
50.	Alumni's active role enables school to increase school financial sources	5	4	2	5	5	0	- 2.060	No
<b>II. School Financial Acceptance Procedures</b>									
51.	School acquires permission from State Education Department in collecting public money	5	5	0	5	5	0	0.000	Yes
52.	Special authorization letter is granted by principal/head teacher for teacher to collect public money	5	5	0	5	5	0	- 1.000	Yes
53.	School records acceptance of money based on specific book category and group of fund	5	5	0	5	5	0	- 1.000	Yes
54.	School issues receipt for every acceptance of money by school	5	5	0	5	5	0	- 1.000	Yes
55.	Total of money accepted from public is banked-in within the same day	5	5	0	5	5	0	- 1.633	Yes
56.	School prepares Bank Payment Slip for acceptance of money through bank	5	5	0	5	5	0	- 1.633	Yes
57.	Acceptance of money from public is forwarded to office within the same day	5	5	1	5	5	0	- 2.000	No
58.	Acceptance of check is credited within one week	5	5	1	5	5	0	- 1.857	Yes

**Table 5.** Findings for the Second and Third Round of Delphi Method (Function of Acquisition and Disbursement).

	ROUND 2			ROUND 3				NO SIGN.
	M O D	M E D	I Q R	M O D	M E D	I Q R	Z	
<b>C. ACQUISITION AND DISBURSEMENT</b>								
<b>I. Acquisition and Disbursement Authority</b>								
59.	5	5	0	5	5	0	- 1.414	Yes
60.	5	5	0	5	5	0	- 1.414	Yes
61.	5	5	0	5	5	0	- 1.414	Yes
62.	5	5	1	5	5	0	- 2.000	No
63.	5	5	0	5	5	0	- 1.414	Yes
64.	5	5	0	5	5	0	- 1.414	Yes
65.	5	5	0	5	5	0	- 1.414	Yes
66.	5	5	0	5	5	0	- 1.414	Yes
67.	5	5	0	5	5	0	- 1.414	Yes
68.	5	5	0	5	5	0	- 1.414	Yes
69.	5	5	1	5	5	0	- 1.890	Yes
70.	5	5	1	5	5	0	- 1.633	Yes
71.	5	5	1	5	5	0	- 1.414	Yes
<b>II. Acquisition and Disbursement Procedures</b>								
72.	5	5	0	5	5	0	- 1.342	Yes
73.	5	5	1	5	5	0	- 1.890	Yes
74.	5	5	0	5	5	0	- 1.732	Yes
75.	5	5	0	5	5	0	- 1.414	Yes
76.	5	5	0	5	5	0	- 1.414	Yes
77.	5	5	0	5	5	0	- 1.342	Yes
78.	5	5	0	5	5	0	- 1.342	Yes
79.	5	5	1	5	5	0	- 1.732	Yes

**Table 6.** Findings for the second and third round of Delphi method (Function of Control and Evaluation).

	ROUND 2			ROUND 3				NO SIGN.
	M O D	M E D	I Q R	M O D	M E D	I Q R	Z	
D. CONTROL AND EVALUATION								
I. School Financial Reference								
80.	5	5	0	5	5	0	- 1.000	Yes
81.	5	5	0	5	5	0	- 1.000	Yes
82.	5	5	0	5	5	0	- 1.000	Yes
83.	5	5	0	5	5	0	- 1.000	Yes
84.	5	5	0	5	5	0	- 1.342	Yes
85.	5	5	0	5	5	0	- 1.342	Yes
86.	5	5	1	5	5	0	- 2.449	No
87.	5	5	2	5	5	0	- 2.401	No
II. Financial Control Authority								
88.	5	5	0	5	5	0	0.000	Yes
89.	5	5	0	5	5	0	- 1.000	Yes
90.	5	5	0	5	5	0	- 1.000	Yes
91.	5	5	0	5	5	0	- 1.732	Yes
92.	5	5	0	5	5	0	- 1.342	Yes
93.	5	5	1	5	5	0	- 1.732	Yes
94.	5	5	0	5	5	0	- 1.342	Yes
95.	5	5	1	5	5	0	- 1.890	Yes
96.	4 & 5	4	1	5	5	1	- 1.732	Yes
III. Financial Control Procedures								
97.	5	5	0	5	5	0	- 1.414	Yes
98.	5	5	0	5	5	0	- 1.732	Yes
99.	5	5	0	5	5	0	- 1.633	Yes
100.	5	5	0	5	5	0	- 1.633	Yes
101.	5	5	0	5	5	0	- 1.633	Yes
102.	5	5	0	5	5	0	- 1.633	Yes
103.	5	5	1	5	5	0	- 1.890	Yes
104.	5	5	1	5	5	0	- 2.121	No
105.	5	5	1	5	5	0	- 2.264	No
106.	5	5	0	5	5	0	- 1.414	Yes
107.	5	5	1	5	5	0	- 1.633	Yes

Table 6. Cont'd.

<b>108.</b>	<b>Financial report is prepared following the completion of every school program/project</b>	<b>5</b>	<b>5</b>	<b>1</b>	<b>5</b>	<b>5</b>	<b>0</b>	<b>- 1.633</b>	<b>Yes</b>
109.	School prepares the agreement effectiveness report on the security and cleanliness contract services	5	5	1	5	5	0	- 1.633	Yes
110.	School prepares stock verification report according to the required frequency	5	5	1	5	5	0	- 2.121	No
111.	Internal Audit Division, Ministry of Education monitors the monthly financial transaction on-line	5	5	2	5	5	0	- 2.214	No
112.	School depreciates its assets based on standard procedures	5	5	1	5	5	0	- 1.414	Yes
113.	School registers the financial monitoring activities in the Immediate Inspection Record	5	5	1	5	5	0	- 2.121	No
114.	School sets up a systematic resource center	5	4	1	5	5	0	- 2.333	No
115.	School submits the Monthly Expenditures Performance Report to the Head of Responsibility Centre (PTj)	5	5	1	5	5	0	- 1.732	Yes
116.	Minutes of financial meeting by Financial Committee and quarterly report is submitted to the Head of Responsibility Centre (PTj)	5	5	1	5	5	0	- 1.414	Yes
117.	School submits the Yearly School Financial Statement through the Head of Responsibility Centre (PTj) before 28/29 February of the following year	5	5	1	5	5	0	- 1.633	Yes
	IV. Financial Management Effectiveness Measures								
118.	School receives unqualified audit opinion from School Audit Division	5	5	0	5	5	0	- 1.732	Yes
119.	School has optimum financial expenditures as planned in the yearly budget	5	5	0	5	5	0	- 1.633	Yes
120.	School achievement receives recognition based on excellent award	5	5	0	5	5	0	- 1.414	Yes
121.	School's staffs manage to achieve the Yearly Working Target (SKT)	5	5	1	5	5	0	- 1.633	Yes
122.	School obtains overall excellent results in the public examination	5	5	1	5	5	0	- 1.342	Yes
123.	Students' attainments are excellent as a whole	5	5	1	5	5	0	- 1.732	Yes
124.	School programs/projects manage to realize the stated objectives	5	5	1	5	5	0	- 2.121	No
125.	School manages to achieve the targeted Key Performance Index (KPI)	5	5	1	5	5	0	- 2.121	No
126.	School does not receive charge for any financial mismanagement	5	5	1	5	5	0	- 1.604	Yes
127.	PTA's financial fund is audited by auditor appointed among knowledgeable person	5	4	2	5	5	0	- 1.890	Yes

*Full Length Research Paper*

## An investigation of ninth grade students' attitudes toward daily life chemistry

Ismail KENAR\*, Ali Rıza SEKERCI, Ali Rıza ERDEM, Gürkan GEGGEL and Halil Ibrahim DEMIR

Dumlupınar University, Faculty of Education, Department of Science Education, Kütahya, Turkey.

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The purpose of this study is to examine the attitudes towards chemistry of everyday life of high school ninth grade students according to sex/gender, learning/educational level of mother and father, father's profession, and income level of as variables. Survey method has been utilized in research. The sample of the study is composed of a total of 159 ninth grade students from 2012-2013 academic year second term in an Anatolia High School in Kütahya city centre in Turkey. Data from the study were collected with "Attitude Scale Towards Daily Life Chemistry Scale" which consists of 25 items on the five-point Likert type. The Cronbach Alpha reliability coefficient of the scale was calculated to be .88. Analysis of the data was utilized for Independent Samples t-test, one-way ANOVA, to determine the difference between the groups Tukey's HSD test. According to the results of the study, students' attitudes towards Daily Life Chemistry by gender, mother's learning level, and income level variables were found to be the difference. In addition, Gender variable between female and male students' attitudes towards daily life chemistry have been determined to have a statistically significant difference in favor of female students.

**Key words:** Daily life chemistry scale, attitude, gender, ninth grade students', educational level of mother and father.

### INTRODUCTION

The science classes aim at ensuring that individuals handle and scientifically examine the universe they live in and adapt easily to life, because in today's world, the information age is experienced very rapidly. They also aim to ensure that people well observe the environment they exist in and learn ways of obtaining results by establishing cause and effect relationship between events as far as possible (Kaptan and Korkmaz, 2001). This goal can be achieved through science classes by providing students with not only the information pertaining

to their fields of use but also the information necessary for them to suggest solutions for the problems they might encounter in daily life, and by raising them as science literate individuals who are engaged in scientific and technological developments (Pınarbaşı et al., 1998). Furthermore, it is necessary for students to be able to establish good relationship between the concepts they learn at school with the events affecting their own lives (Ayas and Özmen, 1998; Çoştu and Ayas, 2005).

While carrying out the chemistry lessons, which is one

\*Corresponding author. E-mail: [ismail.kenar@dpu.edu.tr](mailto:ismail.kenar@dpu.edu.tr).

of the science classes, the theoretical and practical methods regarding chemistry are used, and thus the necessary behavior changes are tried to be developed in the students (Yücel et al., 2001). The students associate the knowledge and skills they obtain in the chemistry class to different situations in life, and thus contribute to their upbringing as individuals who are sensitive and conscious about the protection of their own health and environment (Ministry of National Education [MNE], 2013). It is a fact that almost all the topics included in the chemistry classes are either related to daily life events or they are the results of daily life events. It is stated that associating the chemistry topics to daily life will contribute to the following: providing a good motivation for students, ensuring that they understand the information better by applying it to different situations, increasing their levels of adaptation to daily life thus helping them lead happier lives, raising awareness about the environment (Pınarbaşı et al., 1998), and forming a positive attitude towards daily life chemistry (Koçak and Önen, 2012a).

The literature covers many studies focusing on how students relate the concepts they learn in science courses (physics, chemistry, biology) to daily life. Some researchers (Anagün et al., 2009; Balkan et al., 2011; Coştu et al., 2007; Dede-Er et al., 2013; Hürcan and Önder, 2012; Koçak and Önen, 2012a; Özmen, 2003; Taşdemir and Demirbaş, 2010; Ürek and Dolu, 2013; Yadigaroğlu and Demircioğlu, 2012; Yiğit et al., 2002). Coştu et al., 2007) conducted a study analyzing the relations between the students' understanding of science concepts and daily life events in order to determine the effectiveness of an education enriched with group discussions compared to the conventional approach, by using a quasi-experimental method. This study reported that the experiment group was successful at a statistically significant level compared to the control group in terms of interpreting daily life events. Ürek and Dolu (2013) carried out a study in order to identify the knowledge levels of prospective teachers regarding the daily life materials containing various elements and compounds, and they found that the prospective teachers did not have adequate knowledge on the daily life chemicals. Yadigaroğlu and Demircioğlu (2012) performed a study in order to find out to what extent the prospective chemistry teachers can associate their chemistry knowledge to daily life events, and their study identified that the prospective chemistry teachers had difficulty in relating their chemistry knowledge to daily life events. Yiğit et al. (2002) conducted a study in order to determine to what extent secondary school 8<sup>th</sup> grade students associate the science concepts to events and phenomena, and in this study, they detected that the students cannot evaluate and interpret the science concepts (physics-chemistry-

biology) at an adequate level in their minds scientifically and that they had a highly low level of relating those concepts to daily life. Özmen's (2003) study aimed at finding to what extent the prospective chemistry teachers can use their knowledge of acid-base concepts for explaining the acid-base events encountered in daily life, and this study revealed that the students could not use the information they learned during their education regarding the acid-base concept, which is one of the most important concepts of chemistry, at a desired level for explaining the acid-base events encountered in daily life. Hürcan and Önder (2012) carried out a study to determine to what extent the primary school seventh grade students associate the science concepts they learned in the Science and Technology Class to daily life, and they reported that the students' level of relating the concepts they learned to daily life was not at the desired level. Balkan et al. (2011) conducted their study in order to determine to what extent prospective science teachers associate the scientific information to their daily lives, and they found that the prospective teachers could relate their scientific information regarding physics to their daily lives to a large extent, while they could relate their scientific information regarding chemistry and biology with their daily lives partially. Dede-Er et al. (2013) conducted a study with the aim of detecting to what extent the students associate what they learn about the topics included in 'Electricity in Our Lives Unit' in the Science and Technology Class to their daily lives and finding the relation between the students' scientific process skills and their level of associating them to their daily lives. They found that the students failed to fully associate the information they received in 'Electricity in Our Lives Unit' to daily life and that their level of associating this information to daily life increased as their scientific process skill levels increased. Koçak and Önen (2012) evaluated the basic chemistry knowledge regarding Chemical Changes Unit of the secondary education ninth grade students, with the alternative activities designed according to 5E model of which subject is daily life chemistry. They examined the effects of those activities on students' motivation for chemistry class, their attitudes towards daily life chemistry and success in chemistry, and they found that when chemistry course was correlated with daily life, there was a positive increase in students' attitude towards daily life chemistry and motivation for chemistry course.

When these studies are examined, it is seen that while they focus on how students associate the scientific knowledge/science concepts they learn to daily life, there are scarcely any studies focusing on their attitudes towards daily life chemistry. In the light of this information, this study aims to examine the ninth grade

students' attitudes towards daily life chemistry according to the variables of gender, the educational status of parents, father's occupation, and income level. In line with this target, answers were sought for the following questions:

1. Do the ninth grade students' attitudes towards daily life chemistry change according to gender?
2. Do the ninth grade students' attitudes towards daily life chemistry change according to the educational status of mother?
3. Do the ninth grade students' attitudes towards daily life chemistry change according to the educational status of father?
4. Do the ninth grade students' attitudes towards daily life chemistry change according to father's occupation?
5. Do the ninth grade students' attitudes towards daily life chemistry change according to income status?

## METHOD

The quantitative research design used in this study was the survey method. The study sample consisted of 159 students (85 females and 74 males) studying at the ninth grade of an Anatolian High School at the city center of Kütahya Province in Turkey in the second semester of the academic year of 2012-2013. The study group was determined through convenience sampling, which is one of the non-random sampling methods.

### Data collection tool

The data collection tool used in this study was "Daily Life Chemistry Attitude Scale (DLCAS)", which was developed by Koçak and Önen (2012a). This scale is based on a five-point Likert scale consisting of 25 statements and five factors, and the Cronbach's Alpha reliability coefficient was found as .880. In this study, the Cronbach's Alpha reliability coefficient of the measurement obtained from the scale was found as .918. The items included in the scale were: Importance, Antipathy, Chemistry and Daily life, Experiment and Daily Life, and Awareness. The scale included 14 statements supporting (positive) daily life chemistry and 11 statements not supporting (negative) daily life chemistry. While evaluating "Daily Life Chemistry Scale" the negative statements were rated as: Strongly agree=1, Agree=2, Neither agree nor disagree=3, Disagree=4, Strongly disagree=5; and the positive statements were rated as: Strongly agree=5, Agree=4, Neither agree nor disagree=3, Disagree=2, Strongly disagree=1. Necessary permits from baseline Kutahya Provincial National Education Directorate were taken and passed the application stage. DLCAS the media class students considering a voluntary basis by the researchers was applied for 20 min.

### Data analysis

The data collected in the study were analyzed by using the statistic package program. In data analysis, independent sampling t-test

was used in order to identify whether there was a significant difference between daily life attitudes according to the gender variable. One-way analysis of variance (ANOVA) was used in order to identify whether there was a significant relation in terms of the variables of the educational status of parents, father's occupation, and income status; and Tukey's HSD test was used to test the difference.

## FINDINGS

This section makes a statistical analysis of the results obtained from the Daily Life Chemistry Attitude Scale and interprets them.

Table 1 indicates that there was a significant difference between gender and daily life chemistry attitudes [ $t(157)=3.14$ ,  $p=.002$ ]. In other words, the attitudes towards daily life chemistry differed significantly according to gender. The average of the total scores of female students' attitudes towards daily life chemistry ( $\text{Mean}_F = 90.42$ ) was higher compared to the male students ( $\text{Mean}_M = 81.58$ ). The average scores indicate that female students attitudes towards daily life chemistry were more positive compared to the male students' attitudes.

Independent t-test was applied in order to determine whether the items included in the Daily Life Chemistry Scale change according to gender, and the results are indicated in Table 2.

When the items of the Daily Life Chemistry Scale are examined separately, it is seen that there was a significant difference between genders in terms of importance, antipathy, chemistry and daily life, and that there was not a significant difference between genders in terms of experiment and daily life, and awareness. It is seen that there was a positive difference between genders in favor of female students in the item of importance ( $t(157)=2.36$ ,  $p=.019$ ). This result indicates that female students had a more positive approach to the daily life chemistry in terms of importance compared to the male students. In addition, it is seen that there was a positive difference between genders in favor of female students in the item of antipathy ( $t(157)=2.83$ ,  $p=.005$ ). This result indicates that female students had a more positive approach to the daily life chemistry in terms of antipathy compared to the male students. Furthermore, it is seen that there was also a positive difference between genders in favor of female students in the item of chemistry and daily life ( $t(157)=3.73$ ,  $p=.000$ ). This result indicates that female students had a more positive approach to the daily life chemistry in terms of chemistry and daily life compared to the male students.

One-way ANOVA was used to test whether the attitudes of the ninth grade students towards daily life

**Table 1.** Dependent t-test results of daily life chemistry scale scores according to gender.

	Group						95% CI for Mean Difference	t	df
	Male			Female					
	M	SD	n	M	SD	n			
DLCAS	81.58	18.95	74	90.42	16.48	85	3.29, 14.39	3.14*	157

\*p&lt; .05.

**Table 2.** Independent t-test results of daily life chemistry scale factor scores according to gender.

Sub-scales of DLCAS	Group						95% CI for Mean Difference	t	df
	Female			Male					
	M	SD	n	M	SD	n			
Importance	22.68	5.11	85	20.66	5.66	74	.33, 3.70	2.36*	157
Antipathy	20.34	6.24	85	17.58	5.98	74	.83, 4.68	2.83*	157
Chemistry and daily life	18.55	4.43	85	15.87	4.58	74	1.25, 4.08	3.73*	157
Experiment and daily life	17.74	2.91	85	14.25	3.51	74	-.52, 1.49	.95	157
Awareness	14.10	3.16	85	13.20	4.22	74	-.25, 2.06	1.53	157

\*p&lt; .05.

**Table 3.** Daily life chemistry attitude averages according to the educational status of parents.

	Groups	n	Mean	SD
The educational status of mother	Primary school(P)	79	90.291	17.280
	Secondary education(S)	54	82.055	18.857
	University and above(U)	26	83.038	17.305
	Total	159	86.308	18.164
The educational status of father	Primary school	34	88.970	20.080
	Secondary education	62	89.112	16.579
	University and above	63	82.111	18.059
	Total	159	86.308	18.164

chemistry changed according to the educational status of parents, and the results are indicated in Tables 3 and 4.

Table 4 indicates that there was a statistically significant difference between the total scores of the students' attitudes towards daily life chemistry and the educational status of their parents [ $F(2-156)=3.942$ ;  $p<.05$ ]. As a result of the Tukey's HSD multiple comparison test, which was performed to identify between which groups this significant difference existed, it was seen that the significant difference existed between the scores of students whose mothers' educational status was primary school and those whose mothers' educational status was secondary education. In other words, students whose mothers' educational status was primary school ( $Mean_P=90.291$ ) had a more positive attitude towards daily life

chemistry compared to the students whose mothers' educational status was secondary education ( $Mean_P=82.055$ ). On the other hand, there was not a statistically significant difference between the total scores of the students' attitudes towards daily life chemistry and the educational status of their fathers [ $F(2-156)=2.851$ ;  $p>.05$ ]. In other words, students' attitudes towards daily life chemistry did not change significantly according to the educational status of their fathers.

One-way ANOVA was used to test whether the attitudes of the ninth grade students towards daily life chemistry changed according to father's occupation, and the results are indicated in Tables 5 and 6.

Table 6 indicates that there was not a statistically significant difference between the total scores of the

**Table 4.** One-way ANOVA results of daily life chemistry attitude scores according to the educational status of parents.

	Source	df	SS	MS	F	p	Difference
Mother's educational status	Between groups	2	2507.801	1253.900			
	Within groups	156	49626.099	318.116	3.942	.021*	P-S
	Total	158	52133.899				
Father's educational status	Between groups	2	1838.497	919.248	2.851	.061	-
	Within groups	156	50295.402	322.406			
	Total	158	52133.899				

\*p&lt; .05

**Table 5.** Daily life chemistry attitude averages according to father's occupation.

	Groups	n	Mean	SD
Father's occupation	Civil servant	52	85.557	16.615
	Worker	38	90.815	18.647
	Self-employment	48	83.854	19.324
	Retired	21	85.619	18.078
	Total	159	86.308	18.164

**Table 6.** One-way ANOVA results of daily life chemistry attitude scores according to father's occupation.

	Source	df	SS	MS	F	p	Difference
Father's occupation	Between groups	3	1100.430	366.810	1.114	.345	
	Within groups	155	51033.469	329.248			
	Total	158	52133.899				

**Table 7.** Daily life chemistry attitude averages according to the variable of income level.

	Groups	n	Mean	SD
Income level	0₺- 1000₺*	33	92.848	18.668
	1001₺- 2000₺	65	86.815	17.045
	2001₺ and over	61	82.229	18.231
	Total	159	86.308	18.164

\*Turkish lira.

students' attitudes towards daily life chemistry and their fathers' occupation [ $F(3-155)=1.114$ ;  $p>.05$ ]. In other words, students' attitudes towards daily life chemistry did not change significantly according to the occupation of their fathers.

One-way ANOVA was used to identify whether the attitudes of the ninth grade students towards daily life chemistry changed according to the income level, and the analysis results are indicated in Tables 7 and 8.

Table 8 indicates that, as a result of the one-way

analysis of variance, which was performed according to the income levels of the students, there was a significant difference between the scores of the students' attitudes towards daily life chemistry [ $F(2-156)=3.835$ ;  $p<.05$ ]. Tukey test indicates that a significant difference existed between the students whose income level was 0-1000 ₺ and those whose income level was 2001₺ and above. In other words, the students whose income level was 0₺ - 1000₺ (Mean=92.84) had more a positive attitude towards daily life chemistry compared to the students

**Table 8.** One-way ANOVA results of daily life chemistry attitude scores according to the variable of income level.

	Source	df	SS	MS	F	p	Difference
Income level	Between groups	2	2443.085	1221.543			
	Within groups	156	49690.814	318.531	3.835	.024*	0-1000 ₺-2001₺ and over
	Total	158	52133.899				

\*p&lt; .05.

whose income level was ₺ 2001 and above (Mean=61.200).

## DISCUSSION AND CONCLUSION

This study aims at examining the ninth grade students' attitudes towards daily life chemistry according to the variables of gender, the educational status of parents, father's occupation, and income level. The following results were attained in the study:

It was found that there was a statistically significant difference between the students' attitudes towards daily life chemistry and gender, and that the female students had a more positive attitude towards daily life chemistry compared to the male students. This result shows parallelism with the results of Koçak and Önen (2012a).

It was found that there was a statistically significant difference between the students' attitudes towards daily life chemistry and their mothers' educational status. The students whose mothers' educational status was at primary school level had a more positive attitude towards daily life chemistry compared to the students whose mothers' educational status was secondary education. On the other hand, there was not a statistically significant difference between the students' attitudes towards daily life chemistry and their fathers' educational status.

There was not a statistically significant difference between the scores for students' attitudes towards daily life chemistry and their fathers' occupation.

There was a significant difference between the scores for students' attitudes towards daily life chemistry and the variable of income level. The students whose income level was ₺0-₺1000 had more a positive attitude towards daily life chemistry compared to the students whose income level was 2001₺ and above.

The following can be suggested based on the study results:

A difference was identified regarding the variable of gender and the attitude towards daily life chemistry. In order to analyze this difference further, different methods or approaches (5E model, Context Based Learning, Project Based Learning, and Argumentation etc.) and a

sample that covers the other grades of the secondary education can be utilized. It was found that the students whose mothers' educational status was at primary school level had a more positive attitude towards daily life chemistry compared to the students whose mothers' educational status was secondary education. The cause/s of this situation can be identified by conducting interviews with the students. A significant difference was found between the students' attitudes towards daily life chemistry and the variable of their income level. It was found that the students whose income level was 0₺-1000₺ had more a positive attitude towards daily life chemistry compared to the students whose income level was 2001₺ and above. The causes of this situation can be revealed by conducting interviews with the students. The teachers can guide students in order for them to be able to associate chemistry topics to the daily life by taking their attitudes towards daily life chemistry into consideration.

## Conflict of Interests

The author(s) have not declared any conflict of interests.

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*Full Length Research Paper*

## Investigation of primary class teachers' conflict approaches by gender

Ibrahim Habacı

Çanakkale Onsekiz Mart University, Faculty of Education, Education Sciences, Turkey.

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The objective of this study is to identify the relationships between disagreements and conflicts that surface with respect to gender in educational institutions and the reasons behind them; to expose the relationship between personal variables and conflict management strategies; to determine how individuals adopt a particular attitude in regard to conflict results; and, by using the obtained results, to reveal gender-based teacher attitudes about conflict. The study group comprises 20 primary-class teachers selected by the purposeful sampling method in the province of Çanakkale, city center. Face-to-face interviews have been held with these teachers and conclusions have been drawn with content analysis. The study was conducted in the summer term of 2015. In this qualitative research, the participant teachers were asked open-ended questions in line with a semi-structured interview form that had eight questions. Obtained data has been analyzed by employing the qualitative data analysis technique (content analysis). Our findings show that teachers experience conflicts with their managers, colleagues and parents of students. We have found that female teachers generally prefer to adopt a manner in favor of communication and compromise, whereas male teachers adopt an enforcing (oppressive) manner in line with their own opinions. The reasons for these behaviors from the gender perspective have been investigated by conducting a literature review.

**Key words:** Gender, conflict, conflict management, conflict management strategies, primary school teachers.

### INTRODUCTION

Human interaction has become increasingly complex in social life, due to increasing population with a diversification of needs in recent years, and differing feelings and opinions have caused establishment of various organizations. With rapid advancements in technology human relations in organizations have become more complex, and as a result organizations have found themselves facing situations of intense conflict. The phenomenon of conflict is one of the most

important ones that the organizations encounter today. Various definitions can be given to "conflict". For example, one definition can be a difference of opinion between two or more individuals or groups for a variety of reasons, or disagreements between co-workers that cause normal activities to halt or become disrupted. It can be defined as the conditions that arise from differing goals, desires, and expectations of individuals within an organization or from other individuals and organizations.

E-mail: [ibrhabaci@hotmail.com](mailto:ibrhabaci@hotmail.com)

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Conflict has always existed between humans and is almost impossible to eliminate entirely.

Conflicts are events that arise from problems associated with individuals and groups who work together and that cause normal activities to stop or become complicated (Eren, 2009:585). Disagreement, confrontation, non-conformity, and opposition are the fundamental elements of conflict (Simsek et al., 1998:167). Conflict management, however, is a process whereby the disruptive effect of conflict is ameliorated or eliminated and is transformed into an efficiency-increasing element (Gumuseli, 1994:22).

Differences in an organization can be a source that positively affects change, innovation, development, and performance within the organization. However, poor management of these differences can have negative and disruptive results that threaten the existence of the organization. Since conflict in environments where people constantly interact with one another is an inevitable phenomenon, the appropriate course of action is to prevent negative consequences to the organization, to manage the conflict process in an effective way, and to steer the conflict in a direction that benefits the organization (Karip, 1999:50).

On the one hand, effectively managed conflicts contribute to the development of the organizational mission and culture, the strengthening of individuals' relations through development of their conflict methods, and the adaptation of individuals to the organization. Conversely, poorly managed conflicts force the organization into a static state and aggravate the problems (Dincer and Fidan, 1996: 359).

## LITERATURE REVIEW

Conflict is a concept with many different meanings. The first difficulty in defining the concept of conflict stems from the fact that it means different things to different people. Since it is a social phenomenon, anthropology, economics, sociology, psychology, management and political science each tackle this concept from a different perspective, and this further deepens the ambiguity. Differences in value systems also affect the interpretation of conflict (Gumuseli, 1994, p. 24–25).

Conflict is a social phenomenon that has been identified in all social communities and that arises between individuals, groups, organizations and nations (Akin and Oztas, p. 9 referring to Rubin, 1994). According to another definition, conflict is a dynamic interaction process that comes to light in the form of disagreement, confrontation, incompatibility and opposition between individuals or groups and that can harm organizations and individuals if it is poorly managed (Gumuseli, 1994, p. 21).

Akkirman defines conflict as a social phenomenon that arises from differences between individuals and groups in

regard to interests, objectives, preferences and value judgments, that causes one side to win and the other side to lose, and that causes negative behaviors such as uneasiness, pressure, stress, hostility and fighting (Akkirman, 1998, p. 2).

In a very short description, Karip defines conflict as “an interest, power and status dispute” (Karip, 2003, p. 1).

Although there is no universal consensus as to the meaning of the concept of conflict, it can generally be defined as a discrepancy in activities, relations and behaviors between social sides (Karip, 2003 referring to Rahim, 1992; Tjosvold, 1991a).

Conflict is inevitable in much of human interaction, because people's desires, goals and needs are different. These differences bring people into confrontation and cause the conflict. The ability of people in this day and age to live a comfortable life and to fulfill what is expected of them are to a great extent dependent on the sound establishment and good management of organizations (Gumuseli, 1994, p. 1).

Conflict in educational organizations arises from the very nature of the system. When one considers that the raw material of educational organizations is human beings and that human behaviors are varied and complex, conflict in such a system becomes inevitable (Durukan, 2004, p. 193).

Generally speaking, when conflict first occurs, it evokes negative feelings. But once conflict is understood in real terms, we see that it is the most important element ensuring the existence and continuity of an educational organization, as conflict gives dynamism and different points of view to individuals and organizations in the educational environment and in social life.

There exists two general approaches in regard to conflict: the traditional approach and the modern approach (Ozdemir, 2012, p. 5). There are certain differences between these approaches, and gender differences are significant in which of these approaches is adopted. In addition, gender differences can have an effect on types, reasons, solution methods and results of conflicts (Asunakutlu et al., 2005, p. 2).

In the traditional approach, conflict causes organizations to fall apart, existing systems to deteriorate and energy to be wasted.

Society expects certain duties of everyone (Baymur, 1994, p. 275). In educational organizations, female or male teachers are expected to utilize the organization's human resources in a way that will achieve the organizational goals. And this requires effective classroom management.

The concept of gender, which is formed by the society and defines values, roles, behaviors, etc. pertaining to women and men, also has a determinative effect on behaviors of those working in the organization. The organization's gender-related values determine the duties, behaviors, values, etc. of the employees. On the basis of organizational gender values, it is observed that

expectations from female and male employees vary, and different circumstances prevail for females and males in the organization (Temel et al., 2006, p. 27). When it is taken into consideration that females and males in the organization are presented different conditions depending on the organization's gender-related values, differences are expected in the perceptions regarding the conflict between female and male educators sharing the same stage in the schools. This is because personal differences, psychological state, and physiological and emotional state all assign different roles to males and females in conflict situations.

Educators should always realize that conflict can lead to both positive and negative consequences and should seek to maintain conflict at a certain level in order to benefit from its positive results. When conflict is managed well in our education system, it can provide many contributions to development of the system (Durukan, 2004, p. 194).

### Conflict strategies

Conflict management is intended to bring the conflict level between individuals and groups in the organization under control and to steer the disagreement and discomfort between the parties in such a way as to be beneficial to the organization (Akkirman, 1998, p. 3, referring to Hampton et al., 1982).

Conflicts in organizations essentially arise by virtue of the dynamic structure of an organization. If there is no disagreement and conflict in an organization it does not necessarily mean that there is no problem in the organization, because a steady state is also a kind of problem. In organizations that are in steady state, it is virtually impossible to see a change in a positive direction. Therefore, conflicts observed in an organization cannot always be interpreted as bearing a negative meaning (Arslantas and Ozkan, 2012, p. 557).

In addition to acknowledgment of the differences, the objective of conflict management is to understand the value of differences in a social structure, to respect these differences and to continuously develop the ability to use conflicts to serve the purposes of individual growth and social advancement (Oztas and Akin, 2009, p. 13).

As is the case with all organizations, conflict is also an indispensable reality of educational organizations in particular. In order to avoid negative consequences for both the organization and individuals, conflicts in organizations must be managed effectively. It is particularly important for school managers to use conflict management strategies in an effective way (Karakus and Cankaya, 2009, p. 117).

Conflict management strategies are individuals' self-expressed predispositions toward certain behavior models in conflict situations (Gumuseli, 1994). According to Rahim, strategies that parties can follow can be

analyzed in five groups: integration, conformity-obedience, compromise, domination and avoidance (Karip, 2003, p. 63 referring to Psenicka and Rahim, 1989; Rahim, 1992, 1994).

**Integration:** Integration strategy is defined as solving the problems as a team. In this strategy, parties cooperate and address the real problem, causes of the problem and differences in a constructive way. By this method, parties are able to gain a broad perspective about what they can do (Karakus and Cankaya, 2009). According to this strategy, an individual neither waives his/her own right nor encroaches on others' rights. This strategy can be employed when the balance of power between the parties is in equilibrium.

**Conformity – Obedience:** If in a conflict situation a person feels highly concerned about the other party while he feels less concerned about himself, he can choose to settle the conflict through conformity. This is also defined as "being ready to help" and "not resisting" (Oztas and Akin, 2009, p. 16). But continuously exhibiting this behavior in conflict situations is not acceptable for the individual. A person who always endures in silence and cannot say "no" to others even when he is right cannot be considered psychologically healthy.

**Domination:** This symbolizes an individual's high interest in himself and low interest in others during the conflict. The competitive/domination-inclined person in this style calculates his own gains and ignores the other party's wishes and expectations. A competitive person believes that he and/or his position are in the right and always wants to win, no matter what it takes (Arslantas and Ozkan, 2012 referring to Yagcioglu, 1997). This type of person demonstrates a highly egocentric personality and often will be deemed undesirable by the organization. As a result, the organizational climate may be impaired and communication broken.

**Compromise – Making Reciprocal Concessions:** This strategy envisions finding a middle way and reaching mutual agreement. In this strategy a person concentrates on his own needs as much as on the needs of others (Karakus and Cankaya, 2009). For a person with a compromising attitude, a hidden level of discomfort on both sides will remain. Neither he nor the other party will be happy.

**Avoidance:** This involves unassertive and non-cooperative behaviors. Individuals support neither their own opinions nor the opinions of the opposing parties. They show withdrawal behavior. They remain indifferent to most of the events. Avoidance behavior can put a person in a relatively small or less important position (Kirel, 2013, p. 11). When they encountered a problem, they are unable to successfully fulfill either their goals or their relationships.

The use of the above-mentioned five conflict solutions can change with respect to contingency theory. In the utilization of these conflict strategies in educational institutions, various factors can be influential, i.e., the personal characteristics of the individual, the structure of the organization, and management style. At this point, one can ask this question: Which strategy is the best? This is difficult to answer. However, it is vital to not avoid conflict but manage it effectively.

### **Objective of the study**

The first objective of this study is to determine the gender-based solutions and problem-solving strategies of primary class teachers when encountering problems in educational organizations. Second, it aims to identify the relationships between disagreements and conflict issues that emerge in schools, and the reasons behind them, by taking teachers' gender differences into account. Third, the study attempts to identify conflict management approaches in conflict situations. A further objective of the study is to identify how people develop their attitudes with regard to conflict results. And finally, it intends to present teachers' gender-based attitude differences with respect to conflict.

### **Significance of the study**

The significance of the study arises from the fact that it determines the issues of disagreement and the opposing parties with which primary class teachers experience a conflict, it identifies the relationship between conflict issues and the reasons behind them, and it sets forth the relationship between conflict management strategies from the gender perspective. The study attempts to identify primary class teachers' conflict management approaches in a given conflict situation in order to determine how they develop different attitudes with respect to gender in regards to conflict results. It also determines the fundamental factors from which these approaches arise.

### **Problem case**

The negative effects of conflicts in educational institutions cause concern for the school's internal and external stakeholders. The inability to manage conflicts creates disruption in educational activities, failure to achieve targeted objectives, and agitation in the school climate. Consequently, the internal and external stakeholders of the schools are adversely affected. Poorly managed conflicts can threaten the very existence of a school. Administrators should be alert to the negative effects of conflict and should be able to manage or solve the conflict in a manner consistent with the organization's

objectives (Kocak, 2012). The administrator must be objective, free of prejudices about conflict, and should know that avoiding all conflict is impossible. Likewise, administrators should know that effectively managed conflicts contribute to the development and changing of the school.

Educational environments are complex environments in which many stakeholders come together. Everyone frequently encounters various conflicts in daily life. But what particular types of problems do primary class teachers encounter in educational institutions, and how do they overcome them? Are there differences in solving these problems from a gender perspective? If so, from which strategies do primary class teachers benefit most? Our study tries to provide answers to these questions. The conflicts that primary school teachers encounter and how they overcome them have been investigated using the following eight open-ended questions:

1. Who are the parties you have a conflict with in your school?
2. What are the conflict issues you experience?
3. What are the causes of your conflicts?
4. What are the effects of conflict on your performance?
5. What do you know about conflict management?
6. How do you find solutions to the conflict issues you experience?
7. What are your suggestions regarding conflict issues?
8. What does conflict mean for an organization?

### **METHODOLOGY**

In our study we have used phenomenological design, which is a qualitative research method. In phenomenology studies the objective is usually to set forth and interpret individual perceptions or points of view pertaining to a certain phenomenon (Yildirim and Simsek, 2005). In the phenomenological model the objective is to focus on phenomena such as perceptions and feelings and to see and feel the essence. In other words, in the research with this model, essentially the focus is on the phenomenon that we are aware of but do not have in-depth knowledge about (Akbulut, 2012, p. 97).

This research adopts a qualitative research framework that brings to the forefront research on social phenomena within their environment. It seeks to describe primary class teachers' opinions regarding conflicts experienced at schools with respect to their gender differences. It also analyzes these opinions with the content analysis method by grouping them under certain themes.

#### ***Data gathering instrument***

The data of this research has been obtained by a semi-structured interview technique conducted on teachers in the sample. The semi-structured interview is a type of interview which is conducted in order to gather the same type of information on the intended analysis subject from each of the participants (Sali, 2012, p. 145). In this technique, the researcher prepares in advance the interview protocol that contains his planned questions. Conversely, depending on the flow of the interview, he can change the course of the interview by asking side and sub questions and can facilitate

the interviewee's opening answers and provide in-depth statements (Turnuklu, 2000, p. 547). The semi-structured interview form has been prepared by conducting a literature review and consulting experts' opinion. In order to prevent data loss during interviews, teachers' permissions were obtained and conversations were recorded electronically. Recorded conversations were then uploaded to a computer and transcribed. Later, they were arranged in accord with the interview form. Finally, obtained data were analyzed, coded and reported.

### Participants

In the selection of participants for the research, purposeful sampling has been employed. Our sample in this research comprises ten male and ten female teachers. All of the teachers have been working at state schools. Eight of the teachers have experience of between 1-5 years, four of them have 6-10 years, three of them have 11-15 years, and five of them have 16-20 years. Fourteen of the teachers have an undergraduate degree and six have a master's degree.

### Data gathering

In order to effectively bring the teachers' feelings and opinions to the surface in this research, specific interview techniques have been utilized. During the interviews, teachers were asked eight open-ended questions. This method is preferred to prevent and minimize deviations in the data being obtained from the interviews (Patton, 2002). Depending on the flow of the interviews, necessary changes were made in the order of the questions to be asked.

Before starting the study, expert opinion from four persons was consulted to prepare the form for the interview that would be conducted with teachers. Subsequently, interviews were carried out and teachers were asked questions about problems they experience and the reasons behind them. Each interview took between 25 and 35 minutes. Interviewed female teachers were assigned the codes "F1, F2,..." and male teachers were assigned the codes "M1, M2,..."

### Analysis of data

In this research, which was designed in accordance with a qualitative research approach, "content analysis" has been employed in the analysis of data. The data has been analyzed in four stages (Yildirim and Simsek, 2008, p. 228):

1. Coding the data
2. Determining the themes of the coded data
3. Arranging the codes and themes
4. Defining and interpreting the findings

At the end of the interviews the concepts and sentences that the teachers used were diligently analyzed and the intended basic concepts in their feelings and thoughts were classified. Similarities and differences were coded. After the expert opinions, some generalizations were made and it was given its final shape. In stating the findings, direct quotations were made and teachers' own statements were presented.

## FINDINGS

On the basis of the teachers' opinions, the findings that were obtained through the analysis of the data are

elaborated below under the headings pertaining to the questions asked.

### Findings related to teachers' conflict issues and reasons behind them

The subject matter of conflicts that the teachers experienced and their reasons were asked of participants, and the teachers' answers were assessed under the general headings. Accordingly, primary class teachers have conflicts with their managers, colleagues, parents of students and to some extent with students.

### Subject matter of conflicts that primary class teachers experience with their managers

1. Negative consequences experienced after senior teachers assess performance of their managers
2. Unfairness in resource allocation
3. Differing opinions about disciplinary regulations
4. Differing opinions about how the courses should be taught
5. Managers' inability to deal with teachers equally

The most frequently mentioned issue raised by the teachers was unfairness in resource allocation (F1, F3, F4, F7, F9, M2, M6, M10). F7, who voiced this matter as a conflict issue, says: *"The computers sent to the school by the provincial directorate for national education should be distributed to teachers equally, but they were not given to my class. When I informed the administration about this issue in writing they told me that some of the computers were used in managers' rooms."* Teacher M10 said: *"Although projectors and screens were set up in other classrooms, my class was forgotten. And I call it arbitrariness."*

Every year in the Turkish National Education System senior teachers, heads of parent-teacher associations and newly appointed teachers appraise the performance of the school headmaster. Under normal conditions, these performance evaluations are kept confidential; however, some school headmasters can gain access to these evaluations and learn how the teachers evaluated their performance. If the assessment contains negative attitudes or opinions, teachers can be subject to psychological intimidation or bullying by the headmaster (F4, F5, F9, M1). For example, F9 says: *"I am a senior teacher at the school, with 15 years of experience. I did not have any problem with our headmaster, but ten days after his performance evaluation his behavior toward me changed and, although they were not within my responsibilities, he began to assign new tasks to me."*

Another conflict issue that teachers experience regards the implementation of existing disciplinary regulations (F5, F6, M2, M8). These conflicts arise from differences in interpretation of certain articles of the regulations that

are sent to schools by the Ministry of National Education. When statements of teachers are analyzed, M2 says: *“For instance, a student making a continual habit of being late to school is not acceptable. Although I warned my student many times, when he persisted, I called his parents. My talk with the parents was very positive. They then talked to the school’s headmaster. The headmaster asked why I called the parents about such a small and unimportant matter, and I had a verbal conflict with him.”*

From the statements of teachers it is apparent that they often experience conflicts in the implementation of rules and regulations.

According to statements of the teachers, another issue of conflict is the manner in which courses should be taught, since headmasters have a responsibility to visit classes, assess the performance of teachers and advise them accordingly (F9, M7). By way of example, M7 speaks as follows: *“I am a mathematics teacher. I am the one who is expert in my field and I think I know how this course should be taught. The headmaster came to my class, listened to my lecture for forty-five minutes and at the end of the class asked why I had called the students to the chalkboard so frequently, adding that I should only explain the subject and ask questions at the end. I stated that these kids were only third grade students and that problem-solving would ensure retention in learning.”* Teachers accept headmasters’ attendance in classes, but they expect to be respected by them.

The last conflict issue that primary class teachers and managers experience is that managers do not treat teachers equally (F8, M1). In the words of F8: *“A teacher colleague of mine who was teaching the same grade of students in another class requested that pin-boards be erected and internet connection be provided in her class. Although her request was fulfilled, when I requested internet I was given a negative answer.”* M1 says: *“At the end of the year when the report cards were distributed, the headmaster came to the teachers’ common room and congratulated to Mrs. Zeynep publicly on her success. Although my class was more successful, she turned us a blind eye.”*

### **Methods teachers use in conflicts with their managers**

When the participant teachers were asked, “In a conflict situation, how do you overcome it?” the general answers were suggestions such as writing a petition, having a meeting, trying to persuade, requesting implementation of regulations and persisting. A majority of the participants stated that they were most successful in requesting implementation of regulations, having a meeting and trying to persuade. F5 stated: *“I try to persuade my manager when I need to, and until I realize my goal I persist and continue to implement the regulations.”* F8 stated: *“I encounter a problem at my school, I have a meeting with my manager.”*

### **Teachers’ suggestions about conflicts with their managers**

A majority of the participant primary class teachers stressed that in order to minimize the number of conflicts experienced managers should receive comprehensive training before they assume managerial positions. They mentioned that if these training seminars and programs included *“empathetic thought development, communication, group leadership, motivation, ability to appreciate success, fair behavior...”* it would make managers’ jobs easier.

When we look at other suggestions of primary class teachers, we see that they raise points such as *“universal importance of education (F4, M2), strong relationships with parents (M5), motivating the teaching (M10), informing teachers in advance about future programs (F1, M3), consistency between the words and actions of managers (F8).*

### **Primary class teachers’ conflict issues with their colleagues**

When we analyze the responses of participant primary class teachers concerning the problems they experience with their colleagues, we see the following issues:

1. Seniority-linked conflict between generations
2. Use of the same classrooms by different teachers
3. Egocentric behavior— inability to act together with the group
4. Not sharing accumulated knowledge (selfishness, competition)
5. Exhaustion (being closed to innovative approaches)
6. Reflecting political points of view regarding the educational environment (membership in different trade unions)
7. Inability to accept success of others (jealousy)

From the statements of teachers, it is clear that the most frequently encountered problems are selfishness and competition (F1, F4, F6, F8, F10, M2, M3, M4, M7). About this point M3 states that *“Although his class is academically far behind my class, Ali doesn’t refrain from bragging about himself continually, and he is not loved at all by other teachers due to his behavior and comments.”* F5 says: *“One of our colleagues gets demoralized when the success of another teacher is continually talked about.”*

Another important problem teachers often face has been reported as reflecting a political point of view in the educational environment. As is widely known, each of the trade unions is unfortunately perceived as the affiliated institution of a political party. Differences of opinion arise between teachers who are members of different trade unions (F5, M7, M8, M10). To illustrate this conflict issue

M8 states: *“Since we are members of the trade union that is linked to the government party, we can get done whatever we want, we can get appointed wherever we want.”* According to our research, another problem arises from seniority-linked conflicts. Those who have 16-20 years of work experience see themselves as more experienced than those who have recently started their careers (M4, F5, F8, F9). F5’s statement illustrates this: *“We have devoted fifteen years of our lives to education; you don’t understand these things.”*

In the interviews with teachers, another conflict issue that comes to the fore is that which arises from use of the same classrooms by different teachers in the morning and afternoon sessions (F5, F9, M5). Such things as shared bulletin boards and changing of the classroom layouts give rise to conflicts. F9 says: *“I come to school in the afternoon. Sometimes we can’t find the pictures, writings and notices on the bulletin boards.”*

In addition, interviews with primary class teachers show that exhaustion (F6), not accepting others’ success (F9, F10), not acting in harmony with the group, individualistic behavior and not accepting the rules (M5, M6) are other reasons behind conflicts between teachers.

### **Solutions to minimize primary class teachers’ problems with their colleagues**

When talking about solutions that they implement to resolve conflicts, participant class teachers have mentioned sharing information, meeting in the middle, communication, an empathetic approach, preferring others instead of self, attributing the success to others, or staying away from the conflict environment and pretending the problem does not exist as the behavior models they resort to. Most of the teachers have stated that, when faced with a problem, getting in touch with the other person is a more effective way than ignoring the problem. In their statements teachers F8 (being clear on the issue), M5 (being honest), M10 (not doing wrong, not speaking out against other people) and F5 (there is one truth, rules exist to be obeyed and everybody should accept this) suggested some effective ways to minimize conflicts.

In this research, teachers, when talking about how to eliminate the problems they experience with other colleagues, have said that provocative statements should be avoided (M5, M6). About the same topic (M5) says: *“Individual differences should be respected in educational institutions. Even when I am right, I frequently give up my claim, perhaps avoiding discussion is the best way.”*

### **Solution suggestions of primary class teachers about the conflicts with their colleagues**

A majority of the primary class teachers who participated in the research have expressed that in their spare time

school managers should facilitate social programs that can frequently bring teachers together; organize picnics, visits and volunteer social activities; and give weight to group work to strengthen the communication between teachers.

### **Primary Class Teachers’ Conflict Issues with Parents**

At the end of the interviews that were conducted, teachers’ problems with parents have been summarized with the responses below:

1. inability to comprehend the importance of education
2. parents’ over-expectations of teachers
3. indifference to school matters
4. unwillingness to join social and cultural activities
5. not taking school programs into account
6. distrust toward teachers
7. not giving importance to students’ achievement
8. comparison between teachers
9. complaints of too much or too little homework
10. attributing students’ failures to teachers

In the interviews with primary class teachers the great majority of teachers have stated that parents are indifferent to school matters, some parents always stay at school and they have over-expectations of the school (F1, F4, F8, M3, M7). For example, F4 says: *“When parent-teacher meetings were held, certain parents did not attend.”* For parents with over-expectations, M3 says: *“Some of our parents do not leave the school yard, as if they were the teachers, and they frequently talk about developments with their child and ask questions.”*

Another point mentioned by the participant teachers has been that failures are attributed to the teachers (M5, M7, F6). A statement to illustrate this comes from M7: *“As a matter of fact, my child doesn’t deserve these low grades, he should be getting higher, if this is so, then there is a problem with your course teaching or in motivating the students.”*

Another conflict issue that primary class teachers are faced with is the comparison between teachers (M6, M9). On this point M9 speaks as follows: *“Her teacher last year was following my child better, and she was doing her homework with more enthusiasm.”* Also, in the interviews issues such as parents thinking teachers give too much homework (M1), thinking homework is inadequate (F5), distrust toward teachers (M4, M10), not giving importance to students’ successes (F4), and not joining social and cultural activities (M6, M8) have been encountered.

### **Solutions adopted by primary class teachers in their conflicts with parents**

The participant teachers in this study have ranked the methods that would be effective in decreasing the

number of conflicts as follows: family visits, sending messages to families in writing, communication by phone, informing parents in advance about the activities to be performed at school, being in continuous contact, conducting seminars for families, ensuring that parents attend parent-teacher meetings. However, among the above-mentioned solution recommendations, they emphasized that informing parents in advance about the activities to be performed at school is the most effective way (F1, F3, F4, F6, F9, F10, M4). To illustrate this point, F6 says: *"While planning all types of social and cultural activities, except teaching activities, I've identified parent representatives. While engaged in this process, I am also including them in the process."* Teachers mentioned that family seminars and communication are also effective, if these are done then teachers are considered to have fully performed their task, and after this stage families should also be willing to accept what is presently available (M1, M2, M3, M7, M8, M10, F5). Regarding this point, F5 says: *"We are fulfilling our duties, despite all kinds of difficulties. Education does not require only a teacher, education starts in the family, and families should follow their kids as much as we do."* M10 says: *"In our meetings with parents, no matter how much we keep on the right side of them, parents expect more and they aren't satisfied."* Some also argued that the educational background of parents should be respected. (M9) says: *"Sometimes parents criticize us. It is necessary to sit down and talk with such parents; they should be satisfied and we should make them feel valuable. Still, we should have the courage of our own convictions, we should avoid conflicts."*

### **Primary class teachers' suggestions about their conflicts with parents**

One of the most important findings of this study is that, according to primary class teachers, in minimizing the conflicts experienced with parents in educational environments communication and frequent meetings are the most effective ways. It has been emphasized that teachers' visits with parents has an especially positive effect on the parents of primary school first and second year students. F2 says: *"Being informed about a student's developmental performance will give comfort to parents, and therefore parents will develop a positive attitude toward the school."* Being in contact with and calling parents at appropriate times are among the proposed solutions. As an example, F7 states: *"If there is communication with parents and a teacher can pass on to parents the feeling that they are valuable and important stakeholders of education, then conflict is out of the question."* In recent years private schools have started four-week-long trainings which are called "family schools." It has been observed that these schools help parents develop positive attitudes toward the school, understand the importance of education, know the

academic staff closely, find answers to problems and develop vision and mission regarding their kids.

### **Primary class teachers' conflict issues with their students**

Interviews showed that primary class teachers experience some conflicts, albeit limited, with their students. The most prominent conflict issues are as follows:

1. not doing homework
2. being late to school
3. not listening to the teacher
4. harming friends
5. not wearing school clothes
6. absenteeism
7. fighting with friends

While half of the participant teachers observe these behaviors as problems that arise from family or the environment in which the child is raised, some of the primary class teachers do not see the problems they experience with their students as conflict issues. They mention that they can solve these problems by developing strong communication with students over time. They also recommend that teachers having such problems solve them by being patient, by loving and by accepting and showing emotion.

### **Conflict strategies of primary class teachers with respect to gender**

Teachers were asked about the methods they use in overcoming conflicts, and conclusions have been reached from the answers they provided with respect to gender. Primary class teachers' statements have been tabulated concerning all conflict issues with managers, colleagues and parents, the other parties in such conflicts. On the basis of solutions used by the teachers themselves, as well as suggested solutions, the conflict strategies have been matched with each suggestion or solution recommendation.

Accordingly, by looking at the above generalizations, the following conclusions have been made (Table 1): While females tend to be in favor of compromise and collaboration, males generally attain their goals through domination and enforcement. In some cases, males ignore the problem.

### **Primary class teachers' opinions about organizational outcomes of conflict**

Primary class teachers have been asked about organizational outcomes of conflict, and answers have

**Table 1.** Conflict management strategies.

Conflict management strategies	Female teachers	Male teachers
Compromise	F1/F3/F4/F6/F9/F10	
Collaboration	F2/F7/F8	M4
Domination	F5	M1/M2/M3/M7/M8/M10
Avoidance		M9
Obedience		M5/M6

**Table 2.** Organizational outcomes of conflict.

Results	Female primary class teachers	Male primary class teachers
Positive	F5	M2/M3/M5/M6/M7/M8/M9/M10
Negative	F1/F2/F3/F4/ F7/F8/F9/F10	M1/M4
Does not affect	F6	

been assessed under the following general groupings (Table 2). All the participant teachers were asked about the effects of conflict on educational institutions, and from a gender perspective, females perceived conflict negatively (F1, F2, F3, F4, F7, F8, F9, F10). In an illustrating statement, F7 says: *“Rules are clear. What the school management or regulations require from us should be fulfilled. If people act in this way, there is no need for conflict. Besides, it causes devastation for the institution, motivation is lost and it causes people to feel bad about themselves.”*

In the research, males have stressed that conflict can help the development of the organization and allow new ideas to emerge (M2, M3, M5, M6, M7, M8, M9, M10). It has been mentioned that conflict can facilitate people getting to know and understand each other better, can help identify aspects such as innovation, change, organizational effectiveness and deficiencies and can increase communication. A dominant idea is that in this way an organization can regenerate itself. On this point M6 says: *“In the absence of conflict, no progress can be talked about, and this situation is a hindrance for development.”* Another teacher, M3, speaks on this point as follows: *“Conflict exists everywhere humans exist; what is important is to be able to manage the conflict well.”*

## DISCUSSION AND CONCLUSION

Our research shows that primary class teachers experience conflicts with their managers, colleagues, students and parents of students. When we look at teachers' gender-based attitudes, solutions and suggestions in regard to conflict, we find that female teachers

are more in favor of compromise, whereas male teachers are more in favor of domination. In this study, females are open to communication and sharing while males are rather oppressive and prefer to establish domination. From a gender perspective it can be said that this finding is in line with the literature.

When we look at the reasons behind this we see that in patriarchal societies, males demonstrate assertive, harsh and materialist characteristics, whereas females demonstrate modest, kind, sensitive and emotional characteristics, and they give greater importance to the essence of life. In these societies determination, liveliness and ambition are perceived as more masculine, while kindness, affection and concern are perceived as more feminine. In patriarchal societies gender roles are clearly separated from each other and patriarchal characteristics are dominant, such as bragging, earning tangible things and the importance of money. In these societies the dominant values are materialistic success and progress. Women mostly assume the role of a mother raising kids. In patriarchal societies conflicts between people are usually settled by fighting. Traditional societies are mostly the ones where males are dominant. In these societies “maleness” and “being a man” are respected concepts. As a result of this, women are forced to live in a world where they must be like men to be successful. This situation can cause women to get hurt emotionally and psychologically (Leung and Moore, 2003).

Women face barriers when entering and advancing in the work life. These barriers can be summarized as the perceived traditional roles of women and the incompatibility of work life with social expectations in line with these roles, lack or high cost of institutions that provide child care and housekeeping services, certain jobs being

closed to women due to written and unwritten rules, lack of support for and outright prevention of women from rising in the hierarchy of work life, and sexual abuse (Gelegen, 2001, p. 27).

The reason behind the openness of females to communication and cooperation stems from their very nature. As an example of this, the following qualities can be mentioned regarding females: high communication skills, good command of body language, better language-expression skills than males, being better at the art of listening, being successful in social skills, ability to think empathetically, strong problem-solving skills, superiority in obeying rules, and playing the mother role.

In his study, Seker (2000) has set forth that, compared to female teachers, male teachers have a lower level of communication skills perception. In addition, educational environments are generally environments requiring communication. And teaching is a profession which is performed in an intense communication environment. In accord with the fact that teaching is considered a profession for women in our country, Strong (1943) states that from early ages on, cultures considered some professions primarily suitable for women. According to the author, society generally expects women to work in arts, music, literature, teaching, office jobs and social services (referred by Cimen, 1988). Accordingly, it could be expected that female candidates might perceive the profession of teaching as more suitable to themselves, and this in turn might have affected their communication skills perceptions positively.

Gulluoglu (2013) determined that there was a significant difference favoring female teachers in the "collaboration" and "compromise" strategies sub-dimensions. This finding is consistent with our finding that "female teachers use problem solving strategies more than male teachers". Contrarily, Uysal (2012) found a significant difference in favor of male teachers in the avoidance, obedience, and compromise strategies sub-dimensions, Altuntas (2008) found a significant difference in favor of male teachers in the obedience strategy sub-dimension, Ozgan (2006) found a significant difference in favor of male teachers in the domination and obedience strategies sub-dimensions, and Gunbayi and Karahan (2006) found a significant difference in favor of male teachers in the compromise and strategy sub-dimensions. When we look at the usage averages of the "collaboration" strategy, we can say that in the process of the conflict resolution process, female teachers show a higher interest in themselves and the other party than male teachers. Female teachers put more value on sharing information with the opposing party, generating alternatives, questioning differences, and collaborating than male teachers. Thus, we can conclude that female teachers tend to find permanent solutions to conflicts between their colleagues. When one looks at the usage averages of the "obedience" strategy, compared to male teachers, female teachers are willing to surrender their

own needs and interests in favor of the other party's. Female teachers are more interested in protecting their relationships than meeting their own expectations. The fact that they want to appease the other party and make concessions can be attributed to the reality that females are more self-sacrificing in nature than males. (Korkmaz, 2013)

Review of the literature also reveals that another factor behind males being dominant stems from their hormonal system. Testosterone and serotonin hormone levels trigger men's quality of being extremely dominant. As a matter of fact, these two hormones exist in both males and females. As the testosterone hormone level increases, males become more aggressive and dominant. If the serotonin hormone level decreases, the same effect is observed again. In this study, teachers have mentioned that conflicts have negative effects on their moods. In addition, they have mentioned that they can manage conflict well if they become adequately knowledgeable about conflicts. Some of the teachers may even perceive as conflict the communication that takes place in the ordinary course of life.

## Suggestions

1. Females in patriarchal societies that arise from gender factor should abandon their recessive tendencies. While carrying out the role assigned by an organization, they should be able to protect themselves when necessary and should make their presence felt by the society.
2. In educational institutions, males should not think themselves superior to females. They should not forget that male and female individuals are equal and do not possess any intrinsic superiority to one another.
3. In order to minimize conflict, the authority and responsibilities of all parties should be told to them in an open and clear way.
4. In the life of a society which is becoming increasingly complex, everyone is engaged in the struggle for acquiring the best of everything, and this is the main driving force behind conflict. Therefore, seminars should be organized to help all parties to develop empathetic feelings.
5. All sides have deficiencies in communication skills. This problem should be tackled by the experts.
6. Women should be preferred for those positions requiring communication and cooperation.
7. Similar studies should be conducted which include other parties. For example, related subsequent studies might research what types of conflicts are experienced by managers and parents associated with educational institutions.

## Conflict of Interests

The author has not declared any conflict of interests.

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*Full Length Research Paper*

## Problem solving skills of people doing sporty recreation activities in Karaman Province

Sefa Şahan BİROL

Karamanoglu Mehmetbey University, Karaman, Turkey.

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The aim of the study is to examine the problem solving skills of people who are doing sporty recreation activities in Karaman Province. A total of 143 people participated in this study (51 females and 92 males) Their age mean was  $1.2168 \pm 0.41350$ . Problem Solving Inventory, developed by Heppner and Peterson, was used to measure the problem solving skill level of an individual. The Turkish version of the problem Solving Inventory was realized by Şahin et al. For processing data, conventional statistical measures and methods were employed: Analysis of variance (ANOVA) test, tukey test, t-test, mean frequency distribution and standard deviation. SPSS was used for analyzing of data. Results showed that the people who participated in the study had problem solving skill total score of 101.9930 mean. When values which could be taken from the total score of the inventory (32 min - max 192) were considered, it could be said that the teachers had moderate problem-solving skills. Statistically meaningful difference was found for the gender variable in considering and planned approaches; for age variable in avoidant approach; for marital status variable in impetuous and evaluator approached and for place where people live variable in impetuous approach ( $p < .05$ ).

**Key words:** Problem solving, recreation, sports.

### INTRODUCTION

Leisure is complex concept with different meanings depending on the context and the person. From beginning of human history, leisure has been a part of every day life. Legacies from ancient cultures endure today. For example, ancient Greece has given us a spiritual interpretation of leisure, ancient Rome is recognized as the origin of mass recreation and the Middle ages has added that touch of guilt we sometimes feel when we choose our favorite pastime over work (Russell, 1996). As history shows, leisure has gained its

significance for both the individual and society. An understanding of the concepts of play, leisure and work is not only a basic requirement for any leisure scholar or professional, but it can also enhance individual leisure experience (Bull et al., 2003). Modern technology eliminated every need for a man to be physically active and the consequences are reflected in reducing physical and physiological factor of potential. Today's man, more than ever, needs daily body activity that he carries out during leisure (Sindik et al., 2009).

E-mail: [veyselltemel@gmail.com](mailto:veyselltemel@gmail.com), [veyselltemel@kmu.edu.tr](mailto:veyselltemel@kmu.edu.tr)

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Playing, rest, entertainment oriented leisure time activities is important in every part of life. Thus, it is important to put forward how people spend their leisure time. Leisure time has found place not only in sports but also in many sciences like sociology, psychology and economics. According to French Sociolog Dumazedier, the description of leisure time is “ an activity which an individual prompts his own creative capacity to relax and to increase his knowledge and his participation into the community out of work, family and social obligations (Tel and Koksalan, 2008). At the same time, it is stated that recreative activities brought by leisure time provide economical benefit (Karakucuk, 2005). Nevertheless, leisure time is known as a notion which is used for the activities related to recreation, culture, sport and rest (Kooijman, 2002). Along with the raising technology, individuals have more leisure time, participating into the leisure time activities more depending on their income level and more leisure time activities in the sense of socialising has become an important element.

Leisure is often divided into a number of seperate categories, such as indoor and outdoor leisure, sport, countryside recreation, arts and entertainment and tourism. When we look at the indoors' activities, home is the first alternative of the indoors activity. The home has always played some role in leisure provision, if for no other reason than that most people have always spent a good part of their lives there and have needed some amusements to occupy themselves. They include reading, music, painting and social entertainting (Bull, 2003). Since outdoor recreationists are in direct contact with nature, it is generally assumed that they are more likely to appreciate the natural surroundings and espouse a proenvironmental orientation (Thapa, 2010). Everyone has opportunities for leisure and recreation; and by understanding the nature of these activities, you may come to a better grasp of their potentials. By studying leisure and recreation in your society, you may enhance your own potential for participation and enjoyment (Bammel and Bammel, 1996).

Problem was defined as an obstacle against available difficulties gathered by an individual to reach his target (Bingham, 1983). Keeneland described the problem as the difference between the available and expected situation of something (Keeneland, 1999). According to Morgan, problem was described as the case of conflict when the individual encountered and hindrance while reaching a target and he defended that it would be harder to reach the target with this hindrance and finding the best way to overcome the hindrance meant solving the problem (Morgan, 1982). People face a lot of situations for solving problems in their daily lives. Problem solving is reasoning and problem-overcoming process starting from

the individual's feeling the difficulties that he faces in reaching a target and to the duration that he spends till he finds a solution to it (Ülküer, 1988). This process aims to look for the ways to restore organisms' inner balance and to get rid of the stress through obeying the rules and decreasing the hindrances. Therefore, problem solving is a comprehensive knowledge and skill which should be learnt and obtained and it should always be enhanced (Bingham, 1983; Sungur, 1992). Problem solving varies with the types of problem. Problems are solved by differnt ways: some need to be approached emotional, while others need to be approached with a new perception. The common way of solving problem is to remove obstacles that hinder one from achieving one's aim (Cüceoğlu, 2003).

## METHODS

### Study universe and sample

In this study, it was aimed to investigate problem solving skills of people doing sporty recreation activities in Karaman Province. The study comprises a descriptive study. The result obtained from the research was restricted to 143 people of 155 participants, but the 12 survey was excluded from evaluation (a total of 51 females and 92 males; age:  $1.2168 \pm 0.41350$ ).

### Data collection tool

In the study, The participants were given questionnaires. Problem Solving Inventory, developed by Heppner and Peterson (1982), was used to measure the problem solving skill level of the individuals. The Turkish version of the problem Solving Inventory has been realized by Şahin et al. (1993) and the personal information sheet of 12 questions was used.

### Problem solving inventory

This inventory scored between 1 and 6 is Likert type and measures one's own perceptions about one's problem solving skills. In the course of scoring 9<sup>th</sup>, 22<sup>nd</sup> and 29<sup>th</sup> items were left aside from scoring. The 1<sup>st</sup>, 2<sup>nd</sup>, 3<sup>rd</sup>, 11<sup>th</sup>, 14<sup>th</sup>, 15<sup>th</sup>, 17<sup>th</sup>, 21<sup>st</sup>, 25<sup>th</sup>, 30<sup>th</sup> and 34<sup>th</sup> items are scored in the inventory. The Problem Solving Inventory has six sub-dimensions which are: Impetuous Approach, Considering Approach, Avoidant Approach, Evaluator Approach, Self-assured Approach and Planned Approach. The least point is one and the utmost point is 6 in the answer key. At least, 32 and utmost 192 points can be taken in the whole Problem Solving Inventory. The total high score from the scale indicates that the individuals are perceived to be inadequate with regards to problem solving (Şahin et al., 1993).

### Data Analysis and Interpretation

Descriptive frequency and percentage distributions to the students'

personal characteristics forming the sample group are created. One sample Kolmogorov-Smirnov test was applied to know whether the scale used in the analysis of data is appropriate to the normal distribution ( $p > .05$ ). Analysis of variance of the parametric tests instead of Kruskal Wallis- H test and t test instead of Mann-Whitney-U test were used. To evaluate the statistics, Statistical Package for the Social Sciences (SPSS) Windows version 21,00 package programme was used. And also mean frequency distribution and standard deviation were done.

## FINDINGS

In the first part of the study, problem solving levels of people were determined. In the first phrase of the research, demographic characteristics were analyzed. This study was done with the aim of presenting people doing sports recreation activities in Karaman, Turkey, problem solving skills. The information obtained was interpreted as follows: in the first phase of the study, the demographic features of the participating people were determined. According to this, 51(35.7%) participants were females and 92(64.3%) were male. The age distribution of the people was: 112(78.3%) of them were 25 and less; 31(21.7%) of them were between 26 and 30 (Age  $(1.2168 \pm 0.41350)$ ). The marital status dispersion of the people was such: 123(86.0%) were singles and 20(14.0%) were married. The education status dispersion of the participants was as such: 49(34.3%) of them had a Bachelor degree, 78(54.5%) of them graduated from high school and also 16(11.2%) of them graduated from secondary school. When the residence of the people was analyzed, rate of the people living in a metropole was 31(21.7%), in a city was 50(35.0%), in a town was 38(26.6%) and in a village and small town was 24(16.8%). The rate of the people's income was; 67(46.9%) of them in 750 TL, 56(39.2%) of them between 751 TL and 1500 TL and 20(14.0%) of them between 1501 TL and 2250 TL. When free time activity hours were analyzed; 35(24.5%) of them spent for 1-2 h, 46(32.2%) of them spent for 3-4 h, 45(31.5%) of them spent for 5-6 h and 17(11.9%) of them spent for 7 h and over. For free time enough for them, rate of said "enough" was 91(63.6%) and "not enough" was 52(36.4%). In the reason for doing the activities, 35(24.5%) of them said for "avoidance of daily routine activities", 20(14.0%) for "getting social society", 36(25.2%) for "relaxing spiritually and mentally", 39(27.3) for having healthy life and 13(9.1) for avoidance of working life". For sports facilities, 53(37.1) of them said "yes" and "no", 90(62.9). According to the doing sports recreation frequency, 48(33.6%) said "once a week"; "twice a week", 52(36.4%); "three times a week", 30(21.0%) and "four times a week", 13(9.1%). In sports centre, how many hours you spent, people said

"one hour" 35(24.5%), "two hours" 64(44.8%) and "three hours" 44(30.8%).

In the second part of the study, problem solving skills of the people doing sporty recreation activities in Karaman province were determined.

In Table 1, problem solving sub-dimension and total points of people participating in the search were analyzed. At the end of this search, impetuous approach was found as  $\bar{X} = 32,8182$  (min 9 – max 54). So it can be said that its point is high-level. Considering approach was  $\bar{X} = 14,2937$  (min 5 – max 30), avoidant approach was  $\bar{X} = 13,9720$  (min 4 – max 24) and self-assured approach was  $\bar{X} = 21,78232$  (min 7 – max 42 ). So it can be said that their points are over the mid-level. And also evaluator approach was  $\bar{X} = 8,2308$  (min 3 – max 18) and planned approach was  $\bar{X} = 10,8951$  (min 4 – max 24). So it can be said that their points are mid-level.

Finally, problem solving total point was  $\bar{X} = 101,9930$ . Problem solving total point regarded as the minimum score was 32 and maximum score was 192 total point of the scale. Where people's total point was  $\bar{X} = 101,9930$  in the problem solving inventory examined, it can be said that people participating in the research have high level problem solving skills.

In Table 2, problem solving sub-dimension and t-test results were analysed whether or not they differ according to "Gender Variable". According to the table, while the women's point in Impetuous Approach is  $\bar{X} = 31,2745$ , the men's point is  $\bar{X} = 33,6739$  and a meaningful difference was not found in terms of impetuous approach point (t:-1, 969 p: ,279<0,05).

While the women's point in Considering Approach is  $\bar{X} = 14,1176$ , the men's point is  $\bar{X} = 14,3913$  and a meaningful difference was found in terms of Considering Approach point (t:-0,355 p: ,000>0,05). While the women's point in Avoidant Approach is  $\bar{X} = 12,8824$ , the men's point is  $\bar{X} = 14,5761$  and a meaningful difference was not found in terms of Avoidant Approach point (t:-1, 841 p: ,167<0,05). While the women's point in Evaluator Approach is  $\bar{X} = 7,5294$ , the men's point is  $\bar{X} = 8,6196$  and a meaningful difference was not found in terms of Evaluator Approach point (t:-2,177 p: ,099<0,05). While the women's point in Self-assured Approach is  $\bar{X} =$

**Table 1.** Results of people related to  $\bar{X}$  and Ss values of problem solving sub-dimensions and total point.

Sub-dimensions of problem solving inventory	n	$\bar{X}$	Ss	Min.	Max.	The max. and min. points in the inventory
Impetuous Approach	143	32,8182	7,04976	13,00	54,00	9-54
Considering Approach	143	14,2937	4,39883	5,00	25,00	5-30
Avoidant Approach	143	13,9720	5,31533	4,00	24,00	4-24
Evaluator Approach	143	8,2308	2,90626	3,00	16,00	3-18
Self-assured Approach	143	21,7832	5,12401	7,00	38,00	7-42
Planned Approach	143	10,8951	3,98892	4,00	22,00	4-24
Total Point	143	101,9930	16,85376	47,00	145,00	32-192

**Table 2.** According to gender variable, problem solving skills related to the sub-dimensions and total score t- test results.

Sub-dimensions of problem solving inventory	Gender	n	$\bar{X}$	s	Sd	t	p-Value
Impetuous Approach	Woman	51	31,2745	7,30227	141	-1,969	,279
	Man	92	33,6739	6,79546			
Considering Approach	Woman	51	14,1176	3,27809	141	-,355	,000
	Man	92	14,3913	4,92573			
Avoidant Approach	Woman	51	12,8824	5,65561	141	-1,841	,167
	Man	92	14,5761	5,04754			
Evaluator Approach	Woman	51	7,5294	2,54836	141	-2,177	,099
	Man	92	8,6196	3,03040			
Self-assured Approach	Woman	51	20,4706	4,44681	141	-2,316	,182
	Man	92	22,5109	5,34830			
Planned Approach	Woman	51	10,2745	3,12460	141	-1,390	,003
	Man	92	11,2391	4,37367			
Total Point	Woman	51	96,5490	15,22014	141	-2,953	,929
	Man	92	105,0109	17,03358			

\*p<.05.

20,4706, the men's point is  $\bar{X} = 22,5109$  and a meaningful difference was not found in terms of Self-

assured Approach point (t:-2,316 p:,182<0,05). While the women's point in Planned Approach is  $\bar{X} = 10,2745$ , the

**Table 3.** According to age variable, problem solving skills related to the sub-dimensions and total score t- test results.

Sub-dimensions of problem solving inventory	Age	n	$\bar{X}$	Ss	Sd	t	p-Value
Impetuous Approach	25 and lower	112	32,9196	6,80241	141	,326	,613
	26-30	31	32,4516	7,99099			
Considering Approach	25 and lower	112	14,1250	4,41767	141	-,871	,838
	26-30	31	14,9032	4,34630			
Avoidant Approach	25 and lower	112	14,3661	5,47557	141	1,696	,011
	26-30	31	12,5484	4,48582			
Evaluator Approach	25 and lower	112	7,8750	2,90425	141	-2,851	,502
	26-30	31	9,5161	2,56737			
Self-assured Approach	25 and lower	112	21,3661	5,09371	141	-1,867	,671
	26-30	31	23,2903	5,02788			
Planned Approach	25 and lower	112	10,8750	4,08055	141	-,114	,700
	26-30	31	10,9677	3,70121			
Total Point	25 and lower	112	101,5268	16,08926	141	-,627	,069
	26-30	31	103,6774	19,56934			

\*p&lt;.05.

men's point is  $\bar{X} = 11,2391$  and a meaningful difference was found in terms of Planned Approach point (t:-1,390 p:,.003>0,05). While the women's point in Total Point is  $\bar{X} = 10,2745$ , the men's point is  $\bar{X} = 11,2391$  and a meaningful difference was found in terms of Total Point (t:-2,953 p:,.929<0,05).

In Table 3, problem solving sub-dimension and t-test results were analysed whether or not they differ according to "Age Variable". According to the table, while 25 and lower point of the people in Impetuous Approach is  $\bar{X} = 32,9196$ , their point between 26-30 age is  $\bar{X} = 32,4516$  and a meaningful difference was not found in terms of impetuous approach point (t:,.326 p:,.613<0,05).

While 25 and lower point of the people in Considering Approach is  $\bar{X} = 14,1250$ , their point between 26-30 age is  $\bar{X} = 14,9032$  and a meaningful difference was not found in terms of Considering Approach point (t:,-0,871 p:,.838<0,05). While 25 and lower point of the people in

Avoidant Approach is  $\bar{X} = 14,3661$ , their point between 26-30 age is  $\bar{X} = 12,5484$ , and a meaningful difference was found in terms of Avoidant Approach point (t:1,696 p:,.011>0,05). While 25 and lower point of the people in Evaluator Approach is  $\bar{X} = 7,8750$ , their point between 26-30 age is  $\bar{X} = 9,5161$  and a meaningful difference was not found in terms of Evaluator Approach point (t:-2,851 p:,.502<0,05). While 25 and lower point of the people in Self-assured Approach is  $\bar{X} = 21,3661$ , their point between 26-30 age is  $\bar{X} = 23,2903$  and a meaningful difference was not found in terms of Self-assured Approach point (t:-1,867 p:,.671<0,05).

While 25 and lower point of the people in planned approach is  $\bar{X} = 10,8750$ , their point between 26-30 age is  $\bar{X} = 10,9677$  and a meaningful difference was not found in terms of planned approach point (t:,-,114 p:,.700<0,05). While 25 and lower people' point

**Table 4.** According To marital status variable, problem solving skills related to the sub-dimensions and total score t- test results.

Sub-dimensions of Problem Solving Inventory	Age	n	$\bar{X}$	Ss	Sd	t	p-Value																																																																				
Impetuous Approach	Single	123	33,0569	6,50132	141	1,004	,029																																																																				
	Married	20	31,3500	9,86901				Considering Approach	Single	123	14,3984	4,44961	141	,704	,639	Married	20	13,6500	4,12023	Avoidant Approach	Single	123	14,3333	5,36178	141	2,038	,077	Married	20	11,7500	4,52915	Evaluator Approach	Single	123	8,2602	3,03757	141	,299	,007	Married	20	8,0500	1,95946	Self-assured Approach	Single	123	21,9756	5,21578	141	1,114	,551	Married	20	20,6000	4,45327	Planned Approach	Single	123	10,9675	4,08904	141	,537	,224	Married	20	10,4500	3,36350	Total Point	Single	123	102,9919	16,41645	141	1,771	,762
Considering Approach	Single	123	14,3984	4,44961	141	,704	,639																																																																				
	Married	20	13,6500	4,12023				Avoidant Approach	Single	123	14,3333	5,36178	141	2,038	,077	Married	20	11,7500	4,52915	Evaluator Approach	Single	123	8,2602	3,03757	141	,299	,007	Married	20	8,0500	1,95946	Self-assured Approach	Single	123	21,9756	5,21578	141	1,114	,551	Married	20	20,6000	4,45327	Planned Approach	Single	123	10,9675	4,08904	141	,537	,224	Married	20	10,4500	3,36350	Total Point	Single	123	102,9919	16,41645	141	1,771	,762	Married	20	95,8500	18,60751								
Avoidant Approach	Single	123	14,3333	5,36178	141	2,038	,077																																																																				
	Married	20	11,7500	4,52915				Evaluator Approach	Single	123	8,2602	3,03757	141	,299	,007	Married	20	8,0500	1,95946	Self-assured Approach	Single	123	21,9756	5,21578	141	1,114	,551	Married	20	20,6000	4,45327	Planned Approach	Single	123	10,9675	4,08904	141	,537	,224	Married	20	10,4500	3,36350	Total Point	Single	123	102,9919	16,41645	141	1,771	,762	Married	20	95,8500	18,60751																				
Evaluator Approach	Single	123	8,2602	3,03757	141	,299	,007																																																																				
	Married	20	8,0500	1,95946				Self-assured Approach	Single	123	21,9756	5,21578	141	1,114	,551	Married	20	20,6000	4,45327	Planned Approach	Single	123	10,9675	4,08904	141	,537	,224	Married	20	10,4500	3,36350	Total Point	Single	123	102,9919	16,41645	141	1,771	,762	Married	20	95,8500	18,60751																																
Self-assured Approach	Single	123	21,9756	5,21578	141	1,114	,551																																																																				
	Married	20	20,6000	4,45327				Planned Approach	Single	123	10,9675	4,08904	141	,537	,224	Married	20	10,4500	3,36350	Total Point	Single	123	102,9919	16,41645	141	1,771	,762	Married	20	95,8500	18,60751																																												
Planned Approach	Single	123	10,9675	4,08904	141	,537	,224																																																																				
	Married	20	10,4500	3,36350				Total Point	Single	123	102,9919	16,41645	141	1,771	,762	Married	20	95,8500	18,60751																																																								
Total Point	Single	123	102,9919	16,41645	141	1,771	,762																																																																				
	Married	20	95,8500	18,60751																																																																							

\*p&lt;.05.

participating the research in Total Point is  $\bar{X} = 101,5268$ , people's point between 26-30 age is  $\bar{X} = 103,6774$  and a meaningful difference was not found in terms of total point (t: -,627 p: ,069<0,05).

In Table 4, problem solving sub-dimension and t-test results were analysed whether or not they differ according to "Marital Status Variable". According to the table, while single people's point in impetuous Approach is  $\bar{X} = 33,0569$ , married people's point is  $\bar{X} = 31,3500$ ; a meaningful difference was found in terms of impetuous approach point (t:1,004 p: ,029>0,05).

While single people's point in Considering Approach is  $\bar{X} = 14,3984$ , married people's point is  $\bar{X} = 13,6500$ ; a meaningful difference was not found in terms of Considering Approach point (t:-0,704 p: ,639<0,05).

While single people's point in Avoidant Approach is  $\bar{X} = 14,3333$ , married people's point is  $\bar{X} = 11,7500$ , and a meaningful difference was not found in terms of Avoidant Approach point (t:2,038 p: ,077<0,05).

While single people' point participating the research in Evaluator Approach is  $\bar{X} = 8,2602$ , married people's point is  $\bar{X} = 8,0500$  and a meaningful difference was found in terms of Evaluator Approach point (t:0,299 p: ,007>0,05). While single people' point participating the research in Self-assured Approach is  $\bar{X} = 21,9756$ , married people's point is  $\bar{X} = 20,6000$  and a meaningful difference was not found in terms of Self-assured Approach point (t:1,114 p: ,551<0,05). While single people's point in Planned Approach is  $\bar{X} = 10,9675$ , married people's point is  $\bar{X} = 10,4500$ ; a meaningful difference was not found in terms of Planned Approach point (t: ,537 p: ,224<0,05). While single people's point in total point is  $\bar{X} = 102,9919$ , married people's point is  $\bar{X} = 95,8500$ ; a meaningful difference was not found in terms of Total Point (t:1,771 p: ,762<0,05).

In Table 5, problem solving sub-dimension and The Oneway Anova test results were analysed to know

**Table 5.** According to place where people live variable, problem solving skills related to the sub-dimensions and total score The Oneway Anova test results.

Sub-dimensions of problem solving inventory	Entered the lesson hour	n	$\bar{X}$	Ss	Sd	F	p-value	Meaningful differences Tukey test
Impetuous Approach	Metropole	31	31,7419	7,71565	139	3,082	,030	4-2 4-3
	City	50	32,0000	7,49694				
	Town	38	35,7105	5,52590				
	Towns and villages	24	31,3333	6,41782				
Considering Approach	Metropole	31	13,6129	4,93070	139	1,717	,166	-----
	City	50	14,9800	3,59983				
	Town	38	13,3158	4,88298				
	Towns and villages	24	15,2917	4,18568				
Avoidant Approach	Metropole	31	13,0645	5,11166	139	,946	,420	-----
	City	50	13,7200	4,98995				
	Town	38	15,1316	5,44839				
	Towns and villages	24	13,8333	6,00483				
Evaluator Approach	Metropole	31	7,7419	2,46262	139	1,296	,278	-----
	City	50	8,7400	2,67116				
	Town	38	7,7368	3,25231				
	Towns and villages	24	8,5833	3,25599				
Self-assured Approach	Metropole	31	19,9677	5,60645	139	1,902	,132	-----
	City	50	22,6600	4,39206				
	Town	38	22,1842	4,79783				
	Towns and villages	24	21,6667	6,04812				
Planned Approach	Metropole	31	10,6452	4,32472	139	,277	,842	-----
	City	50	11,3000	3,97569				
	Town	38	10,6053	3,71658				
	Towns and villages	24	10,8333	4,16681				
Total Point	Metropole	31	96,7742	18,78778	139	1,449	,231	-----
	City	50	103,4000	16,26314				
	Town	38	104,6842	12,03397				
	Towns and villages	24	101,5417	21,06301				

\*p<.05.

whether or not they differ according to “Place where the people live Variable”. According to the table, the people’s point living in a Metropole in impetuous Approach is  $\bar{X} = 31,7419$ , people’s point living in a city is  $\bar{X} = 32,0000$ , the people’s point living in a town is  $\bar{X} = 35,7105$  and the people’s point living in a town and a village is  $\bar{X} =$

35,7105; a meaningful difference was found in terms of impetuous approach point (F:3,082 p: ,030>0,05).

The people’s point living in a metropole in Considering Approach is  $\bar{X} = 13,6129$ , the people’s point living in a city is  $\bar{X} = 14,9800$ , the people’s point living in a town is  $\bar{X} = 13,3158$  and people’s point living in a Town and a

village is  $\bar{X} = 15,2917$ ; a meaningful difference was found in terms of considering approach point (F:1,717 p: ,166<0,05).

The people's point living in a metropole in Avoidant Approach is  $\bar{X} = 13,0645$ , people's point living in a city is  $\bar{X} = 13,7200$ , people's point living in a town is  $\bar{X} = 15,1316$  and people's point living in a Town and a village is  $\bar{X} = 13,8333$ ; a meaningful difference was found in terms of avoidant approach point (F:0,946 p: ,420<0,05).

The people's point living in a metropole in Evaluator Approach is  $\bar{X} = 7,7419$ , the people's point living in a city is  $\bar{X} = 8,7400$ , people's point living in a town is  $\bar{X} = 7,7368$  and the people's point living in a Town and a village is  $\bar{X} = 8,5833$ ; a meaningful difference was found in terms of evaluator approach point (F:1,296 p: ,278 <0,05).

The people's point living in a metropole in Self-assured Approach is  $\bar{X} = 19,9677$ , the people's point living in a city is  $\bar{X} = 22,6600$ , the people's point living in a town is  $\bar{X} = 22,1842$  and the people's point living in a Town and a village is  $\bar{X} = 21,6667$ ; a meaningful difference was found in terms of self assured approach point (F:1,902 p: ,132 <0,05).

The people's point living in a metropole in Planned Approach is  $\bar{X} = 10,6452$ , the people's point living in a city is  $\bar{X} = 11,3000$ , people's point living in a town is  $\bar{X} = 10,6053$  and people's point living in a Town and a village is  $\bar{X} = 10,8333$ ; a meaningful difference was found in terms of self assured approach point (F:.,277 p: ,842 <0,05).

The people's point living in a metropole in Total Point is  $\bar{X} = 96,7742$ , the people's point living in a city is  $\bar{X} = 103,4000$ , the people's point living in a town is  $\bar{X} = 104,6842$  and the people's point living in a Town and a village is  $\bar{X} = 101,5417$ ; a meaningful difference was found in terms of total point (F:1,449 p: ,231 <0,05).

## RESULT AND DISCUSSION

This study was carried out to find out whether or not problem solving skills of people doing sporty recreation

activities in Karaman Province differ according to the variables of gender, age, marital status, the place where he/she lives, income status, leisure time, having enough leisure time, doing the activities, enough facilities of sports, how often you do, how many hours you do in a day.

As a result of the study, impetuous approach was found as  $\bar{X} = 32,8182$  (min 9 – max 54). So it can be said that its point is high-level. Considering approach was  $\bar{X} = 14,2937$  (min 5 – max 30), avoidant approach was  $\bar{X} = 13,9720$  (min 4 – max 24) and self-assured approach was  $\bar{X} = 21,78232$  (min 7 – max 42). So it can be said that their points are over mid-level. And also Evaluator approach was  $\bar{X} = 8,2308$  (min 3 – max 18) and planned approach was  $\bar{X} = 10,8951$  (min 4 – max 24). So it can be said that their points are mid-level. Finally, problem solving total point was  $\bar{X} = 101,9930$ . Problem solving total point was minimum 32 and maximum 192 total point of the scale. Where people's total point was  $\bar{X} = 101,9930$  in the problem solving inventory examined, it can be said that people participating in the research have high level problem solving skills. According to the gender variable, a meaningful difference was found in terms of Considering Approach point (t:-0,355 p: ,000>0,05). According to the age variable, a meaningful difference was found in terms of Avoidant Approach point (t:1,696 p: ,011>0,05). According to the marital status, a meaningful difference was found in terms of impetuous approach point (t:1,004 p: ,029>0,05); a meaningful difference was found in terms of Evaluator Approach point (t:0,299 p: ,007>0,05) and also according to the place where people live variable, a meaningful difference was found in terms of impetuous approach point (F:3,082 p: ,030>0,05); so people who live in town and city have impetuous behave.

Temel (2015) found that problem solving mean score of teachers who participated in the study was 101.1569. When values which can be taken from the total score of the inventory (32 min - max 192) are considered, it can be said that the teachers have moderate problem-solving skills.

Mutlu and Ark (2011) studied the people who participated in health and wellness programme in Sport Centre in Kayseri. Besides Mutlu and Ark (2011), it was seen that "Amotivation" points were higher in males and knowing and achieving points were higher in females.

In the study of Griffin and McKenna (1998) and Riddick

(1986), it appeared as a variance-causing variable in the study of Gökçe (2008), which is consistent with the findings in this study. The fact that perceived freedom in leisure scores cause a variation according to age in this study is not consistent with the findings of Stelzer (2000). This might have resulted from the fact that Stelzer (2000) included very young individuals in the study and kept age range rather low.

Borke et al. (2009) found that there was a positive relationship between economic satisfaction and leisure satisfaction. The literature contains studies which are similar to or differ from the findings of the present study. For example, Mancini (1978) carried out a study on the elderly and found that leisure satisfaction level was not affected by income level. Tze (2005) carried out a study on a total of 993 participants in Macao region of Peoples Republic of China and reported that leisure satisfaction level did not vary according to income. The fact that perceived freedom in leisure did not vary according to income is consistent with the study of Samuel (2003).

## Conflict of Interests

The author has not declared any conflict of interests.

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*Full Length Research Paper*

## Curriculum development for enhancing grade nine students' systems thinking

Preeyanan Hernthaisong\*, Somsong Sitti and Kanyarat Sonsupap

Department of Curriculum and Instruction, Mahasarakham University, Faculty of Education, Mahasarakham University, Mahasarakham, Thailand.

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The objectives of this research were to study the development of a curriculum for enhancing grade 9 students' cognitive skills using a curriculum based on Systems Thinking Process. There were 3 phases: 1) studying of the problem; 2) development of tentative curriculum; and 3) implementation of the curriculum in a pilot study. The samples were 32 students studying in Ban Phon Kroke School. The statistics used for data analysis included Percentage, Mean, Standard Deviation, Content Analysis and F-test. The research findings showed that the students were competent in using the Systems Thinking Process. Particularly, every student was able to determine the problem, specify variables relating to the problem, write a chart indicating behavioral pattern relating to the problem as well as causal cycle chart, present the thinking process outcomes, evaluate thinking process, and reflect the correct ways of thinking. The comparative findings of competency in using the Systems Thinking Process showed that the students had a higher posttest competency than the pretest at .01 level of significance. Additionally, the students said that the curriculum was highly appropriate. A longer period of follow up in the curriculum usage should be performed to see whether the students retain this competency and whether their behavior still expresses this competency in Systems Thinking Process.

**Key words:** Curriculum development, knowledge management, systems thinking process

### INTRODUCTION

The current world society is complex and related with each other intensively. It is not easy to solve various problems. We often solve the problems ignorantly without understanding the cause as well as relationship of problem clearly. This makes the new problems to continue. Since the world changes with time, the connection between problems is more complex. Consequently, both knowledge and learning are very much important to the future world. Furthermore, for us

to live in this world creatively and comprehensively, the systems thinking would help us to know the connection between different phenomena in our lives. Systems thinking is a framework for understanding how people learn causes and effects. In Systems thinking, thinking is viewed holistically as a framework to understand patterns as well as their relationships. The special attribute is to view complex things in a way that they can be managed (Senge, 1993). The approach is promoted by Pegasus

\*Corresponding author. E-mail: [uaypreeya@gmail.com](mailto:uaypreeya@gmail.com). Tel: +66 (6) 2653539.

Communications (2000), which describe Systems Thinking as an approach which causes one to respond to a situation and the patterns relating to the new practice guideline in better ways. As a result, the thinking process is continuously improved. A systematic approach to thinking is likened to a special language in which the learner could create better communication with surrounding systems. The Systems Thinking approach is an effective instrument for viewing the situation as well as developing one's understanding of factors and behaviors that people could communicate with other people. Furthermore, it could help in designing a system for managing problem solving. Senge (2000) defined the Systems Thinking Process as a way to see any system through a method of four levels of thinking: the phenomenon or incidence level (events), the trend level and pattern, the structure level, and the mental model.

When a school tries to teach its students about thinking process, it has to change many things including curriculum, instruction, measurement, and classroom management. The curriculum should respond to the needs of the country, community, and locality, all of which are relevant to students' habit, characteristics, preferences, cultures, and merit without limiting learning to only the classroom. We could learn anytime and anywhere. When children are faced with problems, they should be able to use their logical as well as abstract thinking. They should set their hypothesis, try it out, control the variables, record the occurred outcomes, and conclude systematically. Educators commonly view grade nine students between ages 14 and 16 as in their transitional stage.

Their intellectual development includes the development of abstract thinking as well systematic thinking (Inhelder and Piaget, 1958). Consequently, they should be trained in the systems thinking process so that they would be able to view and solve the problem situation in all aspects. The curriculum development for grade nine students needs to come up with important techniques in developing the students to be able to use their systems thinking as effective guidelines for knowledge management to enhance their competency in using systems thinking.

### Research objectives

1. To study the problem of knowledge management of grade nine teachers.
2. To develop a curriculum for enhancing grade nine students' System Thinking Process.
3. To study the implementation of the curriculum for enhancing grade nine students' Systems Thinking Process.

## METHODOLOGY

### Participants

The samples were 32 students studying in Ban Phon Kroke School, the Office of Surin Primary Educational Service Area Two, during the first semester of 2013 academic year. They were selected by purposive sampling.

### Procedure

The research and development of this project consisted of three phases as follows:

#### Phase 1: the study of problem

1. Theories, documents, and related literature in curriculum development were studied (Taba, 1962; Tyler, 1949; Office of Basic Education Commission of Thailand, 2010).
2. Theories, documents, and related literature in Systems Thinking were studied (Senge, 1994; Senge, 2000; Richmond, 2000; Anderson and Johnson, 1997). The problem of knowledge management among teachers of Grade 9 was studied by using a questionnaire. The questionnaire was administered to 84 people teaching Grade 9 during 2013 academic year in 14 Extensional Opportunity Extension Schools, under the jurisdiction of Surin Primary Educational Service Area Two. Also in-depth interviews were done with 14 teachers. Data from the questionnaires were analyzed by calculating the mean, percentage, and standard deviation. Data from the interviews were analyzed using Content Analysis.

#### Phase 2: develop tentative curriculum

1. The curriculum development phase consisted of developing the rationale and approach, objectives, course description, learners' outcomes, structure of the content and lessons, learning activity management, learning media and source management, and measurement and evaluation.
2. The documentation of curriculum development consisted of a handbook for using the curriculum and lesson plans.
3. The tentative curriculum was evaluated by seven experts for evaluating the appropriateness of curriculum.
4. The tentative curriculum was piloted with 30 students in a single Grade 9 classroom.

#### Phase 3: the implementation of the curriculum

1. The design used in this phase of study was the quasi-experimental design as one-group time-series design (Campbell and Stanley, 1969) (Table 1).

O<sub>1</sub> O<sub>2</sub> O<sub>3</sub> O<sub>4</sub> refers to the test performed before receiving the knowledge management instruction (pretest). X refers to the knowledge management instruction by using the curriculum for enhancing the students' system thinking process, consisting of 20 lesson plans, over 40 h of instruction time. O<sub>5</sub> O<sub>6</sub> O<sub>7</sub> O<sub>8</sub> refers to the test performed after instruction (posttest).

Procedure: the researchers first seek permission from the Director of Ban Phon Kroke School to do the study. The pretest used a Systems Thinking Process test developed by the researchers. Four

**Table 1.** The research design.

Pretest	Treatment	Posttest
O <sub>1</sub> O <sub>2</sub> O <sub>3</sub> O <sub>4</sub>	X	O <sub>5</sub> O <sub>6</sub> O <sub>7</sub> O <sub>8</sub>

tests were administered one week apart. The curriculum was implemented using 20 lesson plans over 40 h of instruction. Behavior of students was observed during every lesson plan. The posttest was administered using the same Systems Thinking Process test with the same intervals of one week per test. To guard against the students remembering the pretest questions and the practice effect, the test included parallel construction in which the questions were not in the same sequence.

2. The study of students' opinion on curriculum as expressed in the questionnaire.

### Instruments

The instruments using in this study included:

1. A questionnaire asking about problems in knowledge management.
2. An interview form asking about problems in knowledge management.
3. The curriculum used in the Grade 9 classroom for enhancing the level of systems thinking. It consisted of a handbook for curriculum usage, and lesson plans.
4. The Systems Thinking Inventory, which included:
  - a. the Behavioral Observation Form indicating one's competency in using the Systems Thinking Process, as Rubric Score, used for observing every behavioral lesson plan
  - b. the Systems Thinking Process test as an essay test including 4 items,
  - c. the questionnaire used to gauge students' opinions on studying the curriculum.
  - d. The Learning Diary Record.

### Data Collection

The study began with a review of literature, documents, promotional literature and other sources for the development of a curriculum that would enhance students' skills using the Systems Thinking Process. From this, a draft curriculum was created, which was shared with seven noted experts in the field. At the same time, issues in knowledge management, which came up, were addressed in the form of a questionnaire and script for conducting interviews with teachers of Grade 9. Finally, the curriculum was piloted in the selected Grade 9 classroom in Surin Educational Service Area Two, in Ban Thasila School. The study was then conducted with a classroom of 32 students in Ban Phon Kroke School, in Surin Educational Service Area Two during the first semester of the 2013 academic year. This curriculum was administered for 20 weeks, over a total of 40 h of instruction, following the standards of one-group time-series design (Campbell and Stanley, 1969). At the end of instruction and posttest, students were asked to complete a questionnaire on the curriculum.

### Data analysis

Basic statistics were collected from the pretest and posttest scores:

percentage, mean, and standard deviation. The tests were assessments of students' competency in using the Systems Thinking Process. Pretest and posttest scores were further compared by using the statistic F-test, calculated by analyzing the one-way Repeated Measure ANOVA, category analysis and content analysis. Students' responses to the questionnaire were scored based on a 5-point Likert scale. This was also subjected to measurements of the mean and standard deviation, and then tabulated.

## RESULTS

### The problem of Knowledge Management of teachers teaching Grade 9

The problem was in "High" level. ( $\bar{X} = 3.82$  S.D. = 0.39). Interviews with teachers resulted in the following recommendations:

1. There should be continuous training or practice in systems thinking for students.
2. Work projects that are complex, encourage systems thinking and can be evaluated and assessed should be taught.
3. Media and materials that facilitate students' learning should be provided
4. Lessons should present problems with more than one solution, so students could think in various ways and apply these skills in their daily lives.

These recommendations were incorporated into the curriculum design by the researchers.

### Assessing the developed curriculum

The panel of experts who assessed the tentative curriculum evaluated its appropriateness at a "High" level ( $\bar{X} = 4.37$  S.D. = 0.39). The developed curriculum for enhancing systems thinking process consisted of the following.

### Rationale and approach

1. Knowledge Management was a student-centered activity based on self-directed learning.
2. The training viewed 4 levels of the problem or situation including: 1) the incidence level, 2) the pattern level, 3) the structure level, and 4) the mental model level.
3. The training or practice involved determination of the problem, variables related to the problem, a written chart indicating observed student behavior, designing a chart of the causal cycle, presentation of the findings, and the evaluation of the results of instruction in systems thinking.

4. The development of skill in systems thinking for groups and public presentation.
5. Controlling the learning climate and source management facilitating the students' learning.

### Objectives

1. To train the systems thinking processes of students from situations and problems relevant to local contexts.
2. To show competence in viewing situations or problems in 4 levels overall.
3. To show competence in applying systems thinking in daily life.

### Course description

The Crisis in Our Locality for Enhancing Systems Thinking (1 credit; 40 h): The study, searching, and analysis of crisis problem in strayed elephant, the problem of demolished soil, stone, and mineral, the disaster from agricultural chemicals, and the problem of ecological system in Moon River Basin and Tammoon Forest by using System Thinking Process, Group Process, and Information Searching in order to obtain knowledge as well as comprehension and competency in using the Systems Thinking Process for determining the problem, specifying the variable relating to the problem, writing the chart indicating the behavior, writing the chart of causal cycle, presenting the findings of Thinking Process, evaluating the Thinking Process, being competent in practicing the activity for practicing the Systems Thinking Process as well as desirable characteristic.

### Learner outcomes

1. The students obtained knowledge and comprehension in such problems as strayed elephants; demolished soil, stone, and minerals; ecological consequences of agricultural chemicals; and the problems of Mon River Basin and Tammoon Forest.
2. The students were competent in using Systems Thinking Process for analyzing problems and applying them in their daily life.

### The content and learning unit

The content and learning unit is organized into 4 learning units as follows: Learning Unit 1: "Strayed Elephant"; Learning Unit 2: "Demolished Soil, Stone, and Mineral"; Learning Unit 3: "Disaster from Agricultural Chemicals";

Learning Unit 4: "Problem of Ecological Systems in Moon River Basin and Tammoon Forest".

### Learning activity management

The management of the learning activity included the following five steps in sequence as follows:

1. The situations stimulating the problem were provided for enhancing the ability of students to be able to determine the problem, analyze the context of topic they were thinking by using various kinds of media for encouraging the students to have cognitive dissonance.
2. The goal of comprehension refers to making the students understand the relationship between the problem and factors, the potential body of knowledge or rationale relating to brainstorming and discussion, and the search for empirical data as well as academic information.
3. A chart is written that refers to each student's class presentation in small groups. The chart and presentations show the determination of variables relating to the problem, graphs to indicate one's behavior during the time schedule, and a diagram of causal cycles.
4. These presentations of findings and conclusions make the students to have an opportunity to present their work together. Discussions show how they found the solutions of the problem. Throughout, the teachers were only the leaders of discussions and helped point out aspects of the presentation which should be considered. Then, each student was allowed to consider one's own thinking process in order to improve again.
5. The performance assessment is an initial self-assessment of individual as well as group performance. Then, teachers and students collaborated in evaluating their performance together.

### Management of media and learning media

The learning media used varied and were relevant to the objectives and content of activity management. Media that would stimulate the students' interest and enhance their systems thinking process included, for instance, videotape, additional books, the prepared Knowledge Document, brochures, worksheets, activity sheets, photographs, problem situations from published sources.

### Measurement and evaluation

For assessment and evaluation during instruction, an authentic assessment was determined, for instance, through the observation of student behavior which can

indicate individual competency in using the Systems Thinking Process, followed up by the interview and assessment of group presentation. After completion of instruction, the measurement of evaluation was determined by using the Systems Thinking Process test in the vendor's package.

### The result of curriculum implemented

Qualitative assessment is based on the result of observation of students' behavior indicating students' competency in Systems Thinking Process.

According to these observations, the analysis of findings from student interviews and learning diaries kept by students, the students had knowledge and comprehension of the problems, competency in using a process of systems thinking for determining the problem, presenting the guidelines for solving the problem, and applying these solutions in their daily life. They had the highest ethics, morality, and all the desirable characteristic which will help them accomplish the learning achievement of the subjects. Every student was able to determine the problem, specify the variables relating to the problem, create a chart indicating patterns of behavior relating to the problem and causal loop, present the outcome of their thinking process, evaluate the thinking process, and reflect upon each of their thinking correctly regarding the problem.

The in-depth interviews proceeded as follows:

1. The students could learn from instructional media and sources that existed close to them. As a result, they were able to determine every aspect of the problem. The size of images was always appropriate, various, and interesting.
2. The students in each group brainstormed, collected data, and searched for information in order to analyze the problem, its causes, and find guidelines for problem solving from various sources of information. They were able to produce a beautiful pamphlet of the species of trees in Tammoon Forest as well as fish species in the Moon River. They learned from meaningful activities, and became aware of the problems. Each group of students had interactions with each other. There was a good learning climate in the classroom. They knew the real problem situation fully.

*"I would study and search for additional knowledge."*

*"I would search for additional information from the Internet."*

*"It is necessary to plan and design before performing the real practice."*

3. The students created a chart indicating patterns of

behavior relating to the problem and a causal loop. Most of the students could write the chart correctly as well as decorate the pictures beautifully and appropriately. Each problem issue was connected. Every problem issue was covered. When each student's performance was collaboratively analyzed into the group performance, every group was able to perform it. In addition, they covered both the same problem issues, and some different problem issues.

*"Our group collaborated in planning, designing, analyzing, and discussing in order to write the chart."*

4. The presentation of the group's work was both performance and a set of conclusions on many viewpoints. However, as we listened to the others' opinions, the students from each group could analyze four levels of the problem. At the level of mental representation, they were able to give their opinions according to the guidelines for prevention of and problem solving in a variety of ways. They provided many kinds of media and techniques for their presentation, for instance, pictures and Power point.

*"There is a team working systematically."*

5. Evaluation of performance. The students performed their own authentic assessment by reflecting upon their thinking, and giving additional opinions on their teacher's activity management, whether their learning was flexible, and whether they can associate their learning, and integrate every learning substance into their daily lives.

*"It causes the students to think about solving different problems in daily life systematically which could be used for real application."*

*"We could search for various solutions, and be enthusiastic for learning."*

*"The evaluation is performed by every group of students. The creative viewpoint is useful for learning."*

*"I create my Art Performance from sand with all of my potentiality."*

*"I like this kind of assessment because I could know my assessment performance immediately, and it is fun as well."*

*"The teacher's activity management could help me to practice my systems thinking process, and obtain the skills in observing, analyzing, presenting my performance, and working in a team."*

*"I would apply this knowledge in my daily life."*

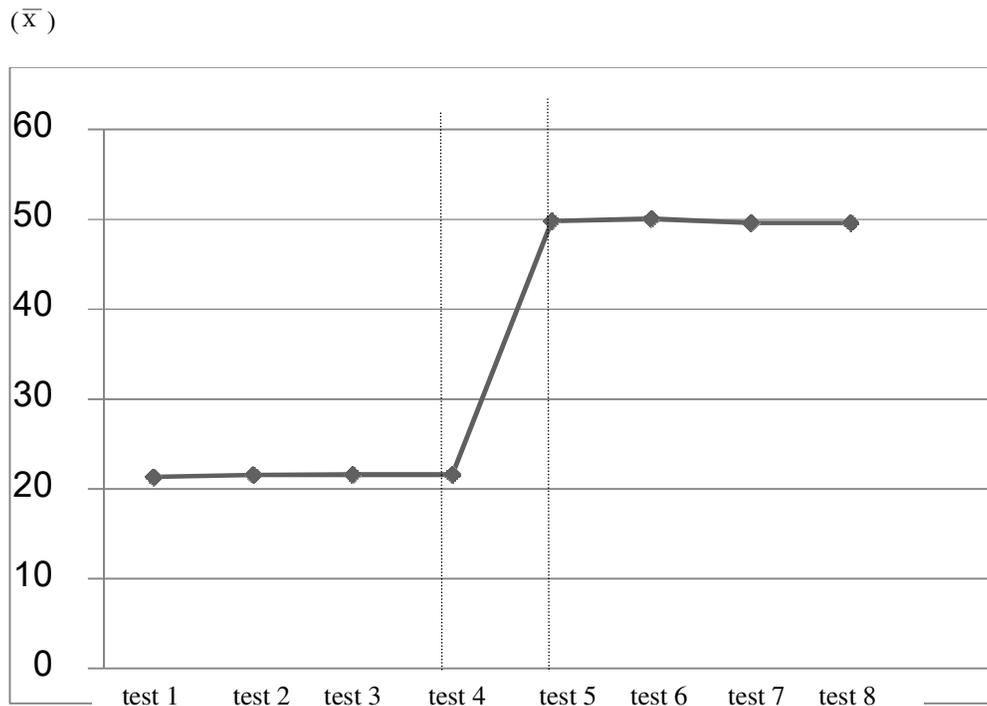
Quantitative data were derived by using the test. The comparative findings of competency in using the Systems Thinking Process are shown in Table 2.

According to Table 2, the comparison of pretest and posttest scores showed that there were significant differences at .01 level.

**Table 2.** The mean, standard deviation, and f-test of competency score in using the systems thinking process

Testing	Number	Full score	$\bar{X}$	S.D.	F	Sig
Pretest	1	60	21.34	5.46	67.026	.000**
	2	60	21.56	5.49		
	3	60	21.59	5.46		
	4	60	21.59	5.53		
Posttest	5	60	49.81	7.37		
	6	60	50.06	7.28		
	7	60	49.62	7.48		
	8	60	49.62	7.20		

\*\* Significant at .01 level.



**Figure 1.** Comparison of the mean of students' competency in using Systems Thinking.

Mean values of students' competency in using the Systems Thinking Process are presented in Figure 1.

According to Figure 1, the mean scores of students' competency in using the Systems Thinking from the 1-4 pretest were nearly the same (21.34, 21.56, 21.59, 21.59). There were differences in mean values between the 4<sup>th</sup> (21.59), and the 5<sup>th</sup> tests (49.81). In addition, the mean scores of the four posttests (49.81, 50.06, 49.62, 49.62) were nearly the same.

The researchers then tested the paired comparison whether differences in pairs were significant. It was

found that the differences were significant in the mean values at .01 level, from 16 pairs. The other 12 pairs were not significant.

The result of students' opinion on studying the curriculum rated its appropriateness at a "High" level ( $\bar{X}$  = 4.32 S.D. = 0.25). This rating of the appropriateness of the curriculum was at the "High" level in every aspect. The mean values were as follows: measurement and evaluation of learning achievement ( $\bar{X}$  = 4.40 S.D. = 0.34), learning media and source ( $\bar{X}$  = 4.35 S.D. =

0.40), learning activity management ( $\bar{x} = 4.30$  S.D. = 0.32), and content of curriculum ( $\bar{x} = 4.25$  S.D. = 0.35).

## DISCUSSION AND CONCLUSION

In developing the curriculum for enhancing the Systems Thinking Process for Grade 9 Students, the researcher found that there were issues discussed as follows:

1. The findings from observation of behavior showed that the students obtained sufficient knowledge and comprehension in working on their problems. They were able to use their Systems Thinking Process in determining the problem, presenting guidelines for problem solving, and applying lessons in their daily lives. They had ethics, morality, and all of the desirable characteristics which could accomplish the course objective. Every student could determine the problem, specify the variables relating to the problem, write diagrams or charts indicating the behavioral pattern of the problem as well as a causal loop, present their thinking processes and reflecting correctly their approach to the problem. In a Systems Thinking Process, the most important issue is to think and understand the whole system or thinking process. Therefore, the knowledge management has to be systematic and that the process must be given highest importance (Senge, 2000). "Systems thinking is a methodology for visualizing interrelationships within a complex system. Given that the focus of interdisciplinary inquiry is to understand the portion of the world modeled by complex system." Nowell (2001) and Repko (2008) found that a system map is a highly useful analytical tool that can help one visualize a system or problem as a complex whole. This has been supported by Toomtong (2010) in "Development of Knowledge Management Model for Developing the System Thinking Process in Mathematics, Class Level 4," in which he found that the developed model for knowledge management was effective according to the specified criteria. Dawidowicz (2011) found that an understanding of and application of systems knowledge has been studied in various business, government, and education environments. However, it is unclear what people at large know about systems thinking, where they gained their knowledge, and how important they consider systems thinking in their decision-making processes. This first phase of a 2-year exploratory study considered these unknowns to identify any need for teaching systems thinking and how to best teach it if appropriate. Results indicated that although the 172 respondents agreed making decisions using systems thinking is important to 79.7% of decisions made and approximately half believed they understood the meaning

of social systems and application of systems thinking to decision making, most demonstrated no or limited understanding of both. Finally, most participants' latently gleaned impressions of systems and systems thinking were gained through informal experiences that had occurred since completing their secondary school education.

Hung (2008) described systems thinking as an essential cognitive skill that enables individuals to develop an integrative understanding of a given subject at the conceptual and systemic level. Yet, systems thinking is not usually an innate skill. Helping students develop systems thinking skills warrants attention from educators.

2. The comparative findings of competency used in Systems Thinking Process: There were significant differences in students' competence in using their Systems Thinking Process at .01 level. According to the findings, it could be seen that the developed curriculum for enhancing the Systems Thinking Process could be used for developing the knowledge management for enhancing the Systems Thinking Process. This is because the researchers systematically developed the curriculum for enhancing the Systems Thinking Process based on the rationale, theory, and related research literature with clear steps. All kinds of instruments were investigated by experts for their quality.

The management of active learning was provided for enhancing the students' competency in using the Systems Thinking Process for solving the specified problems or situations very well. Learning activity management was used by the researchers in the training process. This approach was supported by Senge (2000), who described Systems Thinking Process as an in-depth systematic analysis including: 1) the event level, 2) the trend and pattern level, 3) the structure, 4) the mental model level. The findings of the use of activity management for enhancing the Systems Thinking Process were that students were better able to use the higher level of Systems Thinking Process during the posttest more than the pretest at .01 significance level. This finding was supported by Roma (2008), who found that this implementation could provide the curriculum in Natural Science for Class Level 3 students. Supplementary documents for curriculum evaluated by a panel of experts included were qualified to be used. It was found that the students had better learning achievement at .01 significant level. Assaraf and Orion (2005) looked at the development of systems thinking skills at the junior high school level. The sample population included about 50 eighth-grade students from two different classes of an urban Israeli junior high school who studied an earth systems-based curriculum that focused on the hydro cycle.

The research combined qualitative and quantitative

methods and involved various research tools, which were implemented in order to collect the data concerning the students' knowledge and understanding before, during, and following the learning process. The findings indicated that the development of systems thinking in the context of the earth systems curriculum consisted of several sequential stages arranged in a hierarchical structure. The cognitive skills that are developed in each stage serve as the basis for the development of the next higher-order thinking skills. The research showed that in spite of the minimal initial systems thinking abilities of the students most of them made some meaningful progress in their systems thinking skills, and a third of them reached the highest level of system thinking in the context of the hydro cycle.

Two main factors were found to be the source of the differential progress of the students:

(a) the students' individual cognitive abilities, and (b) their level of involvement in the knowledge integration activities during their inquiry-based learning both indoors and outdoors.

3. The findings of students' opinion on curriculum: The students answered a questionnaire regarding their opinions about the value of studying the curriculum for enhancing the Systems Thinking Process. Their scores were at the "High" level in every aspect. The highest average level was the question on measurement and evaluation in learning achievement. These high results are a product of the opportunity provided by the researchers for students to participate in evaluating their learning achievement. Each group evaluated each other group's performance by reflecting as an authentic assessment. This approach was supported by Mueller (2014), for whom "authentic assessment is a form of assessment in which students are asked to perform real-world task that demonstrates meaningful application of essential knowledge and skills."

Furthermore, the researchers determined the evaluative criteria as rubrics precisely in evaluating students' behavior to indicate their competency in using the Systems Thinking Process. This in turn could help students to see guidelines for developing one's quality work practice or performance, to be given feedback on their strengths, weaknesses, and what should be improved in their work piece, and then to be able to judge the quality of work piece reasonably in both their own work and others. It could reduce the teachers' time in evaluating their students' performance since the students would evaluate their own performance and that of others. It was flexible for various characteristics of teachers and students. Moreover, it could help the students to know what is to be learned. Corroboration can be found in the work of Limcharoen (2009), in which the experimental group students had their opinion of the supplementary

curriculum at a "Good" level.

### Conflict of Interests

The author(s) have not declared any conflict of interests.

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*Full Length Research Paper*

# Metasynthesis of in-service professional development research: Features associated with positive educator and student outcomes

Carl J. Dunst<sup>1</sup>, Mary Beth Bruder<sup>2</sup> and Deborah W. Hamby<sup>1</sup>

<sup>1</sup>Orelena Hawks Puckett Institute, 128 S. Sterling Street, Morganton, NC 28655, USA.

<sup>2</sup>University of Connecticut Health Center, 263 Farmington Ave., MC 6222 Farmington, CT 06030 USA.

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**Findings from a metasynthesis of 15 research reviews of in service professional development to improve or change teacher content knowledge and practice and student/child knowledge and behavior are described. The research reviews included 550 studies of more than 50,000 early intervention, preschool, elementary, and secondary education teachers, educators, and practitioners. The goal of metasynthesis is to identify the common and core features of in service professional development associated with changes and improvements in educator and student outcomes. In-service professional development experts' contentions about the key characteristics and core features of effective in-service training were used to code and analyze the research reviews. Results showed that in-service professional development was most effective when it included trainer introduction, demonstration, and explanation of the benefits of mastering content knowledge or practice, active and authentic teacher learning experiences, opportunities for teachers to reflect on their learning experiences, coach or mentor supports and feedback during the in-service training, extended follow-up supports to reinforce in-service learning, and in-service training and follow-up supports of sufficient duration and intensity to have discernible teacher and student effects. Implications for improving in-service professional development are described.**

**Key words:** Metasynthesis, case studies, in-service professional development core features, teacher change, student change.

## INTRODUCTION

In-service professional development and continuing education are considered essential for educators to become proficient and sustain expertise in their teaching professions (Donovan and others 1999; Guskey 2002; Guskey 2014). According to Darling-Hammond et al.

(2009), "well-designed professional learning helps teachers master content, hone teaching skills, evaluate their own and their students' performance, and address changes needed in [their] teaching and learning" (p. 7). Yet, many teachers and educators consider themselves

\*Corresponding author. E-mail: [cdunst@puckett.org](mailto:cdunst@puckett.org); 828-432-0065.

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ill prepared for their professions (Akiba et al., 2007; Lewis et al., 1999). At least one reason for teachers' judgments of their lack of preparedness is the type of continuing professional development either offered or procured as part of in-service training opportunities.

As part of a status report on teacher development, Darling-Hammond et al. (2009) found that attendance at one-time workshops, conferences, or training sessions are the primary types of in-service professional development for nearly all teachers and that other types of in-service training considered more effective are experienced much less often. Similar findings were reported by Lewis et al. (1999) as part of their analyses of the in-service experiences associated with teacher preparedness and quality. Darling-Hammond et al. (2009) concluded their review of teacher professional development by stating, "We found that well-designed professional development is still relatively rare, and few of the nation's teachers have access to regular opportunities for intensive learning" (p. 19).

The purpose of the metasynthesis described in this paper was to ascertain the extent to which studies of in-service professional development that included key characteristics and core features of in-service training considered effective by professional development specialists were associated with changes and improvements in educator and student outcomes (Desimone 2009; Guskey, 2002). This was accomplished by identifying research syntheses of in-service professional development and by both coding and systematically analyzing the types of in-service afforded teachers and educators to determine whether the inclusion of key characteristics and core features were, in fact, related to positive teacher and student outcomes. The term metasynthesis refers to the "bringing together and breaking down of [quantitative and qualitative] findings, examining them, discovering essential features, and combining phenomena into a transformed whole" (Schreiber et al., 1997).

The investigators of the research syntheses included in the metasynthesis either explicitly or implicitly employed a framework similar to the one shown in Figure 1. The framework is based on those proposed by Desimone (2009) and Guskey (2002) for designing and researching in-service professional development. According to the model, professional development that includes key characteristics and core features is expected to increase or improve teacher knowledge, skills, and practices and, in turn, be related to improved student and child outcomes.

The characteristics and features that have been identified as important for in-service training to be effective include professional development specialists' explicit explanations and illustrations of specific content knowledge and practice to be learned (Archibald et al.,

2011; Desimone, 2009; Donovan et al., 1999; Dunst and Trivette 2009; Garet et al., 2001; Wei et al., 2009), active and authentic teacher learning opportunities (Archibald et al., 2011; Desimone 2009; Donovan et al., 1999; Dunst and Trivette, 2009; Garet et al., 2001; Guskey 2002; Wei et al., 2009), explicit inclusion of different types of practices for engaging teachers in reflection on their understanding and mastery of content knowledge or practice (Archibald et al., 2011; Desimone 2009; Donovan et al., 1999; Dunst and Trivette, 2009; Garet et al., 2001; Wei et al., 2009), coaching, mentoring, and performance feedback during the in-service training (Archibald et al., 2011; Donovan et al., 1999; Garet et al., 2001; Guskey 2002; Wei et al., 2009), ongoing follow-up supports to reinforce in-service learning (Archibald et al., 2011; Donovan et al., 1999; Dunst and Trivette 2009; Guskey 2002; Wei et al., 2009), and professional development of sufficient duration and intensity to provide repeated opportunities to become proficient in the use of content knowledge and practice (Archibald et al., 2011; Desimone, 2009; Dunst and Trivette 2009; Garet et al., 2001; Guskey 2002; Wei et al., 2009). Accordingly, in-service professional development that included the majority of these key characteristics and features was expected to be associated with positive teacher and student outcomes.

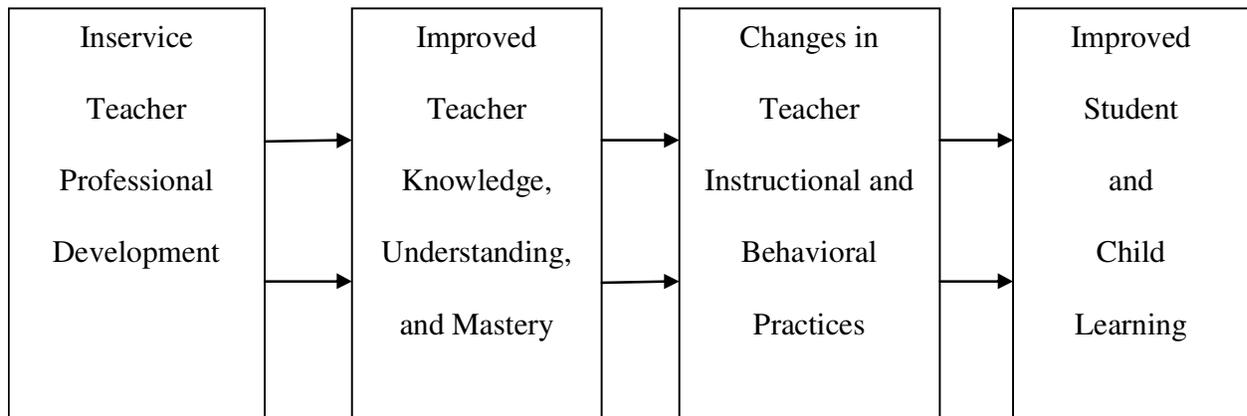
A multiple case design was used to analyze the research syntheses in the metasynthesis (Riedl, 2007; Yin, 2014). According to Yin (2014), multiple case research is grounded in a theoretical or conceptual framework that provides a foundation for testing hypothesized relationships between independent and dependent variables in order to establish causal or explanatory inferences. Therefore, each research synthesis was considered a separate case, and the extent to which the relationships between in-service professional development and teacher and student outcomes were the same or very similar in the research syntheses was the focus of analysis.

## METHODS AND MATERIALS

### Search strategy

Research syntheses were located using the following search terms: (in-service OR in-service) AND (professional development OR staff development OR continuing education OR training) AND (literature review OR narrative review OR systematic review OR meta-analysis OR summative review OR traditional review) AND (teacher OR educator OR practitioner) AND (early intervention OR early childhood OR preschool OR elementary OR secondary). Follow-up searches were conducted using controlled vocabulary, key word, and natural language searches as alternative terms were identified from retrieved publications and reports.

ERIC, PsychInfo, MEDLINE, Academic Search Complete, CINAHL, and Health Source were searched to identify research syntheses. These were supplemented by searches of Infotrac,



**Figure 1.** Framework for linking in-service professional development, changes in teacher and educator knowledge, skills, and practices, and improvements in student and child learning.

ProQuest, WorldCat, Google Scholar, and Google. The reference sections of retrieved journal articles, book chapters, books, dissertations, and other published and unpublished reports and papers were examined to identify additional reviews.

Research syntheses were included if in-service professional development was the main focus of a literature review, there was an explicit attempt to identify the characteristics of and conditions under which in-service training was effective, and sufficient information was included in the reports to code and conduct secondary analyses of the relationships between the key characteristics of in-service professional development and findings in the research syntheses. Literature reviews were excluded if any of the three inclusion criteria were not met, or after an initial review of a research synthesis, it was determined that insufficient information was reported to be able to ascertain the scope of in-service training.

### Search results

More than 25,000 abstracts (including duplicate abstracts in different databases) were generated from searches. These were reviewed to determine which were literature reviews and research syntheses, and which included studies or evaluations of in-service professional development in early childhood, elementary, or secondary education. This resulted in a preliminary list of 36 reviews that were then examined to determine if they met the inclusion criteria. Eighteen reviews were initially considered relevant for the metasyntheses. Three reviews were subsequently excluded because they included either too little information about in-service training (Cornelius and Nagro, 2014; Solomon et al., 2012) or the in-service training in the studies in the review was limited in terms of the characteristics of the professional development afforded the teachers (Gersten et al., 2014). Eight of the research syntheses were published in peer reviewed journals and seven syntheses were unpublished government or professional organization reports.

### Metasynthesis coding

Table 1 includes the in-service professional development features that were coded and used to conduct the secondary analyses of the

reviews as well as the description or definitions of the five sets of characteristics. The core features were developed based on characteristics described by a number of professional development specialists as essential for in-service professional development to be effective (Bransford et al., 2000; Darling-Hammond et al., 2009; Desimone, 2009; Guskey, 2002).

**Focus of training.** The focus of training included both learner objectives and the content knowledge or practice that was the focus of in-service professional development. According to Desimone (2009), in-service professional development is most likely to be effective if it emphasizes specific content knowledge and the instructional practices used by teachers to promote student/learner understanding and use of the knowledge.

**In-service setting.** The settings in which the in-service training was conducted were coded as either or both the teachers' classrooms or early childhood intervention settings (job embedded) or settings other than those where teachers or early childhood practitioners taught students or worked with young children (non- job embedded). The settings in which in-service training was conducted were coded as either primary or secondary based on how much of the professional development was conducted in either of the two types of settings (Table 1).

**In-service characteristics.** Desimone's (2009) core features of professional development, findings in *How People Learn* (Donovan et al., 1999), and recommendations in other sources (Guskey, 2014; Zaslow, 2014) were used to operationalize and code six different characteristics of the in-service training afforded the teachers. These included the methods used by professional development specialists to introduce the content knowledge or practice to the teachers and the methods used to illustrate or demonstrate the use and importance of the content knowledge or practice. The teachers' role in learning the content knowledge or practice was coded in terms of type of active involvement (authentic or real-life opportunities, simulations, etc.) in learning to use the content knowledge or practice and the methods used to engage the teachers in reflection on their understanding and mastery of the content knowledge or practice. In-service support was coded in terms of coaching or mentoring to promote and strengthen the teachers' confidence and competence during the in-service training or direct performance feedback on how well the teachers applied content knowledge or used an intervention or instructional practice.

**Table 1.** Characteristics of the in-service professional development coded in the metasynthesis of the research reviews.

In-service Features	Descriptions of the coded variables
<b>Focus of Training</b>	
Learners' objectives	Content knowledge, instructional practices, teacher confidence, teacher reflection, behavioral practices, intervention-related skills
Content Area	Specific content knowledge or subject areas, teacher-child interactions, childcare practices, mixture of different knowledge and practice
<b>In-service Setting</b>	
Job Embedded	In-service training conducted in teachers' classrooms, childcare programs, preschool classrooms, children's homes, or another contextual setting
Non Job Embedded	In-service training conducted in locations (workshops, summer institutes, university classes, etc.) other than the participants' classrooms, schools, or other instructional settings
<b>In-service Characteristics</b>	
Trainer or Coach Introduction	Methods used to introduce or describe the content knowledge, subject area, or practice to the learners
Trainer or Coach Illustration	Methods used to demonstrate or illustrate the practice or application of the content knowledge (modeling, simulations, observations, video tape examples, coherence <sup>a</sup> )
Authentic Learning Opportunities	Methods used to provide the learners opportunities to use the practice or content knowledge (real-life experiences, simulations, role playing, learner-led instruction, developing lesson plans, induction, etc.)
Learner Reflection	Methods used to engage teachers in discussions of and reflection on their in-service learning experiences or opportunities (group meetings, collective participation, journaling, peer discussions, inquiry, self-assessments, etc.)
Coaching or Mentoring	Methods used to provide guidance and support to learners (in-vivo observations, coaching sessions, teacher-mentor discussions, etc.) during in-service training
Performance Feedback	Methods used to provide direct feedback to learners or the assessment of learner performance or mastery (visual displays of data charts, observational feedback, discussions, email correspondence, telephone conversations)
<b>Study Outcomes</b>	
Teacher/Learner Outcomes	Learner attitudes or beliefs, content/subject area knowledge, instructional or behavioral practices
Student/Child Outcomes	Student knowledge or academic performance, child skill acquisition, student or child behavior
<b>Meta-Synthesis Findings</b>	
In-service Dose	Number of sessions, number of hours, and/or length of in-service training associated with effective professional development
Extended Supports	Type of ongoing trainer or coach follow-up supports associated with effective professional development
Research Synthesis Results	Research synthesists' descriptions or metasynthesists' summary of the findings reported in the research reviews in terms of the in-service characteristics associated with observed effects

<sup>a</sup>Coherence is the term used to describe how trainers illustrate how in-service training content (knowledge or practice) is aligned with State, District, School, or professional organization standards of practice or teacher beliefs and knowledge.

Each of the six characteristics was coded as either a primary or secondary focus of the in-service training based on information in the research syntheses.

**Research syntheses outcomes.** The research syntheses were coded in terms of both teacher and student/child outcomes. The teacher outcomes included changes or improvements in attitudes or beliefs, changes or improvements in content/subject area knowledge, and changes or improvements in the use of instructional or behavioral practices. The student or child outcomes included improvements in student knowledge or academic performance, child skill acquisition, and changes in student or child behavior.

**Metasynthesis findings.** The dosage of in-service training was ascertained in terms of in-service duration (number of sessions, hours or length of training). Follow-up training was coded in terms of the types of ongoing extended supports provided to reinforce in-service learning in the teachers' schools, classrooms, or early childhood intervention settings.

The results from the research syntheses were ascertained from the findings reported by each research synthesist or by secondary analysis of the results in the literature reviews in terms of the in-service professional development characteristics associated with positive teacher and student outcomes.

### Interrater agreement

Two of the investigators independently abstracted and coded information for the in-service features in Table 1 as well as background information about the studies in the research syntheses (e.g., type of synthesis, research designs, number of studies). Interrater agreement of the Table 1 features was attained on 87 to 100% of the 15 research synthesis characteristics. Interrater agreement for the three metasynthesis findings, for example, was 93% for in-service duration, 100% for ongoing extended supports, and 93% for the research synthesis findings. Disagreements were resolved through repeated reviews of the research reports until 100% agreement was reached on all information by both metasynthesists.

### Method of analysis

A replication logic was used to ascertain if the presence of different in-service professional development features and characteristics was associated with the same or similar results in each of the research syntheses (Hak and Dul, 2010b; Riedl, 2007; Yin, 2014). According to Hak and Dul (2010a) and Yin (2014), replication is demonstrated when the characteristics of each case (research synthesis) are much the same and are associated with similar results, and the nature of the relationships among independent and dependent variables allow causal or explanatory inferences. As noted by Eisenhardt and Graebner (2007), the use of replication logic in case study research contributes to theory building which in the case of in-service professional development research either confirms or disconfirms the hypothesized relationships between the core features of in-service training and teacher and student outcomes (Desimone, 2009; Guskey, 2002).

## RESULTS

### Research syntheses

Selected characteristics of the 15 research syntheses and study participants are shown in Table 2. Five of the syntheses were traditional narrative reviews, four were meta-analyses, three were systematic reviews, and three were summative reviews (Davies, 2000). Seven syntheses included only group design studies, and six syntheses included a mixture of group design studies and either descriptive case studies or single subject studies. The majority of group design studies included experimental, quasi-experimental, and pre-experimental investigations or program evaluations (Shadish et al., 2002). One research synthesis included only experimental studies (Dunst et al., 2010), and two research syntheses included only experimental and quasi-experimental studies (Blank and De las Alas, 2009; Yoon et al., 2007). The investigators of two research syntheses did not include information in their reports about the types of studies in their reviews (Joyce and Showers, 1995; Saylor and Johnson, 2014).

The 15 research syntheses included more than 550 studies. The participants included PreK or K to grade 12

teachers (N = 8 reviews), K to grade 5, 6, or 8 teachers (N = 3 reviews), early childhood practitioners (N = 3 reviews), or both PreK to grade 12 teachers and other non-educators (N = 1 review). The research syntheses that included the number of participants or where the number could be estimated from information in the research reports found that the studies included more than 43,000 teachers, educators, and other adult learners. Based on information in the research syntheses that did not include the number of participants, it was conservatively estimated that the 15 reviews included as many as 50,000 early childhood, elementary, and secondary education teachers and students/children.

### Focus of in-service training

Eleven research syntheses included studies of in-service professional development to promote use of different types of instructional or behavioral practices, two research syntheses included studies to promote teacher understanding and use of content knowledge or skills, and two research syntheses included studies of in-service training to promote teacher or practitioner use of different job-related practices or to support teachers' confidence in their teaching practices. The content areas of in-service training included mathematics or science (N = 5 reviews), teacher-child interactions (N = 1 review), teacher praise (N = 1 review), teacher confidence (N = 1 review), or a mixture of different content knowledge and practice (N = 7 reviews).

### In-service training context

Five of the research syntheses included studies where the preponderance of in-service professional development was provided in non-job-embedded settings, and seven syntheses included studies where all or most of the in-service training was provided in teachers' classrooms or schools, childcare or preschool settings, or other work environments. Three research syntheses included studies where in-service professional development was provided in both job-embedded and non-job-embedded settings in about equal amounts.

### Characteristics of the in-service training

Table 3 shows the particular characteristics of in-service professional development that were included in the majority of studies in the research syntheses. All of the research syntheses included studies that incorporated at least 4 of the 6 characteristics as either primary or secondary practices (Mean = 5.20, SD = 0.77). Eighty

**Table 2.** Selected characteristics of the research syntheses and study participants.

Study	Type of Synthesis	Type of Studies	Research Designs <sup>a</sup>	No of Studies	Participants	No of Participants
Blank and De las Alas (2009)	Meta-analysis	Group	E, Q	16	K-12 teachers	749
Blank et al. (2008)	Systematic Review	Group	Q, P, D	25	K-12 teachers	> 3000
Capps et al. (2012)	Summative Review	Mixed	P, D	17	K-12 teachers	> 400
Cavanaugh (2013)	Summative Review	Mixed	Q, S, D	25	PreK-12 teachers	86
Dunst et al. (2010); Dunst and Trivette (2012) <sup>b</sup>	Meta-analysis	Group	E	21	Educators Non-educators	1204
Fukkink and Lont (2007)	Meta-analysis	Group	Q, P	17	Early childhood practitioners	959
Ingersoll and Kralik (2004)	Narrative Review	Group	Q, P	10	K-12 teachers	> 18,000
Ingersoll and Strong (2011)	Narrative Review	Mixed	E, Q, P, D	15	K-12 teachers	> 15,000
Isner et al. (2011)	Narrative Review	Group	E, Q, P	44	Early childhood practitioners	Not Reported
Joyce and Showers (1995); Showers et al. (1987)	Meta-Analysis	Mixed	Not Reported	≅ 200	K-12 teachers	Not Reported
Kretlow and Bartholomew (2010)	Summative Review	Mixed	E, Q, S	13	PreK-8 teachers	110
Saylor and Johnson (2014)	Narrative Review	Mixed	Not Reported	21	K-6 teachers	Not Reported
Snow-Renner and Lauer (2005)	Narrative Review	Mixed	Q, P, D	37	K-12 teachers	Not Reported
Yoon et al. (2007); Guskey and Yoon (2009)	Systematic Review	Group	E, Q	9	K-5 teachers	201
Zaslow et al. (2010)	Systematic Review	Group	E, Q, P	78	Early childhood practitioners	> 3400

<sup>a</sup>E = Experimental, Q = Quasi-experimental, P = Pretest - posttest, S = Single subject, D = Case study. <sup>b</sup>The analyses reported in this paper are only for adult learners that participated in in-service training studies.

percent of the research syntheses (N = 12) included practices for 5 or 6 of the characteristics. All of the research syntheses included both professional development specialist descriptions (introduction) of content knowledge or practice constituting the focus of in-service

training and some type of authentic teacher learning opportunities. Most of the research syntheses included the majority of key characteristics and features considered necessary for in-service professional development to be effective (Desimone, 2009; Donovan et al., 1999;

**Table 3.** Types of trainer and learner activities included as part of the in-service professional development.

Study	Trainer/Coach Roles		Active Learning		Trainer Supports	
	Introduction	Illustration	Authentic Learning	Learner Reflection	Coaching/Mentoring	Performance Feedback
Blank and De las Alas (2009)	✓	✓	✓✓	✓	✓✓	NR
Blank et al. (2008)	✓✓	✓✓	✓	✓	✓	NR
Capps et al. (2012)	✓	✓✓	✓	✓	✓	✓
Cavanaugh (2013)	✓	✓	✓✓	NR	✓	✓✓
Dunst et al. (2010); Dunst and Trivette (2012)	✓✓	✓	✓✓	✓	✓	✓
Fukkink and Lont (2007)	✓✓	✓✓	✓✓	✓	✓	✓
Ingersoll and Kralik (2004)	✓	NR	✓✓	✓	✓✓	NR
Ingersoll and Strong (2011)	✓	NR	✓✓	✓	✓✓	NR
Isner et al. (2011)	✓	NR	✓✓	✓	✓✓	✓
Joyce and Showers (1995); Showers et al. (1987)	✓✓	✓✓	✓✓	✓	✓✓	✓
Kretlow and Bartholomew (2010)	✓	✓✓	✓✓	✓	✓✓	✓
Saylor and Johnson (2014)	✓	✓✓	✓✓	✓✓	NR	✓
Snow-Renner and Lauer (2005)	✓	✓	✓	✓	NR	✓
Yoon et al. (2007); Guskey and Yoon (2009)	✓	✓✓	✓	NR	✓	NR
Zaslow et al. (2010)	✓✓	✓✓	✓✓	✓✓	✓✓	✓

NOTE. ✓✓ = Primary focus of the in-service professional development in the studies in the research syntheses, ✓ = Secondary or minor focus of the in-service professional development, and NR indicates that the research synthesists did not describe or include information in their reports to infer that the professional development included the in-service practice characteristic.

Ericsson and Charness, 1994; Guskey, 2002; Zaslow, 2014).

### Research synthesis outcomes

Acquisition or improvements in teacher instructional or behavioral practices were the primary outcomes in 14 research syntheses. Content knowledge mastery and use were the outcomes in eight research syntheses, and changes in teacher attitudes or beliefs were also the outcomes in eight syntheses. Five research syntheses included all three teacher outcomes (practice, knowledge, attitudes). Eleven of the research syntheses included 2 of the 3 teacher outcomes.

Nine research syntheses included student academic performance, knowledge acquisition, or skill development as the primary child outcome measures, and four research syntheses included student or child behavioral outcome measures. Three research syntheses included both types of child outcomes.

Twelve research syntheses included both teacher instructional practices and student or child outcome measures. Five research syntheses included both teacher content knowledge and instructional practice

outcomes and student or child outcome measures. Five research syntheses included only teacher outcome measures, and one research synthesis included only student outcome measures.

### Metasynthesis findings

Table 4 shows the findings from each research synthesis in terms of the dose of the in-service professional development, the extended supports provided to the teachers to reinforce in-service learning, and the findings from the research syntheses. The patterns of results are remarkably similar regardless of type of research synthesis, types of studies included in the syntheses, and types of content knowledge or practice. Taken together, the metasynthesis indicated that in-service professional development was effective when it included most of the key characteristics and core features described in Table 2, was of sufficient duration and intensity, and included extended follow-up supports and opportunities to reinforce the use of content knowledge or practice.

**In-service dose.** Fourteen of the research syntheses included information about the duration or amount of in-service training afforded the teachers. Eight of the

research syntheses included explicit descriptions of “how much” in-service professional development was associated with positive teacher or student outcomes (Blank and De las Alas, 2009; Blank et al., 2008; Dunst and Trivette, 2012; Joyce and Showers, 1995; Saylor and Johnson, 2014; Snow-Renner and Lauer, 2005; Yoon et al., 2007; Zaslow et al., 2010). The number of hours of in-service training associated with positive effects ranged between 15 and 80+. In a number of reviews, it was stated that multiple in-service sessions distributed over weeks or months of professional development was a factor contributing to positive and significant effects (Dunst and Trivette, 2012; Fukkink and Lont 2007; Isner et al., 2011; Joyce and Showers, 1995).

The dose of in-service professional development reported in three research syntheses was similar in terms of the hours, intensity, or number of sessions although no relationships between dose and teacher or student outcomes were reported, nor could they be discerned from information in the synthesis reports (Blank and De las Alas 2009; Fukkink and Lont 2007; Isner and others 2011). Nonetheless, it could be surmised that the similar doses were factors likely contributing to positive outcomes.

The fact that different doses of in-service professional development were found to be associated with positive outcomes was neither surprising nor unexpected. As noted by Zaslow et al. (2010), smaller dosages of professional development may suffice for discrete practices, whereas larger dosages may be necessary for broader-based and comprehensive sets of practices.

**Ongoing supports.** All of the research synthesis included information about the nature and extent of follow-up supports afforded teachers after the completion of the initial in-service professional development. Ten investigators explicitly stated that ongoing follow-up supports were a factor that reinforced in-service training, whereas three investigators made statements, or it could be surmised, that follow-up supports contributed to positive outcomes (Cavanaugh, 2013; Ingersoll and Kralik, 2004; Saylor and Johnson, 2014). In the majority of cases, the conclusions or statements made by the research synthesists permitted inferences about the importance of extended supports as a factor associated with, or contributing to, positive teacher and student outcomes.

Inferences about the links between extended supports and positive outcomes derive from the fact that the same or similar statements were made by many research synthesists (Capps et al., 2012; Ingersoll and Strong 2011; Kretlow and Bartholomew 2010; Zaslow et al., 2010), or it was possible to discern the conditions under which extended supports were associated with positive outcomes (Cavanaugh 2013; Saylor and Johnson, 2014).

Blank and De las Alas (2009), for example, explicitly stated “the importance of continuing learning reinforcement activities after the initial period of teacher training” (p. 24) as a factor contributing to positive student outcomes. This type of inferential statement was echoed by many research synthesists (Blank et al., 2008; Ingersoll and Strong, 2011; Kretlow and Bartholomew, 2010).

**Research synthesis results.** Investigators of all 15 research syntheses reported or described the characteristics of and conditions under which in-service professional development was most effective. What is reported in the table is the particular in-service professional development characteristics that the research synthesists or the metasynthesists found associated with positive teacher or child outcomes.

Most research synthesists concluded that the in-service professional development afforded the study participants “produced strong evidence,” “showed significant effects,” “was most effective,” “provided empirical support,” etc. when it included trainer introduction, demonstration, and explanation of the benefits of mastering content knowledge or practice; active and authentic teacher learning experiences together with opportunities to engage in reflection on the use of the content knowledge or practice; and coaching, mentoring, or performance feedback during both the in-service professional development and follow-up sessions in the settings where the teachers used the content knowledge or practice.

Thirteen of the research synthesists included explicit statements or conclusions about the key characteristics and core features of in-service professional development that were found to be associated with positive teacher or child outcomes. The statements or conclusions in Table 4 are either direct quotations or paraphrased descriptions in the research syntheses reports. The results from two of the research syntheses are summarizations of findings which contain information about the particular in-service practices that were found to be associated with positive outcomes (Yoon et al., 2007; Zaslow et al., 2010).

The patterns of results, taken together, provide strong evidence for the relationship between specific in-service professional development characteristics and core features and teacher and student outcomes. The fact that the results were the same or similar in the different types of research syntheses for different types of practices bolsters contentions about the necessary, but not the sufficient, conditions for in-service training to be effective.

## DISCUSSION

The metasynthesis described in this paper used

**Table 4.** Measures of the duration of in-service professional development (PD), extended supports, and the major findings in the research syntheses.

Study	In-service Dose	Extended/Follow-Up Supports	Research Synthesis Results
Blank and De las Alas (2009)	PD implemented for an average of six or more months for an average of 91 hours.	"Information on PD provided in programs that had [positive] effects...show the importance of continuing learning reinforcement activities after the initial period of teacher training or intensive knowledge development" (p. 21).	The synthesis "produced strong evidence of active methods of teacher learning during PD [including] leading instruction, discussion with colleagues, observing other teachers..., professional networks, collective participation, and two of the following types of [trainer activities]: coaching, mentoring, internships, or study groups [where PD] included follow-up steps with teachers in their schools" (p. 21).
Blank et al. (2008)	"The total time in PD in the studies with significant effects was 50 hours or more" (p. 1).	"Significant effects [were found] in programs designed with a content-focused PD plus sufficient [follow-up] time [as part of] an in-school component" (p. 1).	The synthesis results "showed significant effects of PD when [in-service training] included a focus on content knowledge...plus training and follow-up...of 50 hours or more...in the [teachers] classroom or school so that teaching practices learned could be reinforced and improved after the teachers had begun to try them with students" (p. 26).
Capps et al. (2012)	Studies included between 12 and 320 hours of inquiry PD.	"Extended support is important because it offers teachers a chance to ask questions and interact with PD [professionals] and colleagues...and opportunities to receive feedback" (p. 299).	The synthesis found the PD was effective when it focused on "supporting teachers in developing inquiry-based lesson plans, providing authentic inquiry experiences, and focusing on content knowledge" (p. 291).
Cavanaugh (2013)	Not Reported	Performance feedback provided to teachers frequently during the course of the studies increased teachers' use of student praise.	"Performance feedback was effective when delivered in a variety of formats including self-monitoring of audio or video, visual display of data using graphs, and emailed descriptions of teachers use of effective practice" (p. 124) and was enhanced with additional training and support for some teachers.
Dunst et al. (2010); Dunst and Trivette (2012)	Studies that included 20 to 40 hours of training distributed over multiple sessions were associated with more positive learner outcomes.	"Findings demonstrate that how instructors engage learners, provide guidance [and support], orchestrate learner self-evaluation and reflection, and support learner deep understanding" (p.106) on repeated occasions matter in terms of positive learner outcomes.	The synthesis results showed that "the more actively involved learners were in mastering new knowledge or practice and the more trainers supported and facilitated the learning process when the learning occurred over multiple sessions with a small number of learners, the better were the learner outcomes" (pp. 105-106).
Fukkink and Lont (2007)	Studies included 16 sessions and 55 hours of training on average and were provided over the course of 6 months on average.	"Some form of supervision (coaching, mentoring, guided practice) constituted a supplementary part of the PD" (p. 301).	The synthesis findings "demonstrate that specialized training improved the pedagogical competencies of caregivers in childcare, including their professional attitude, knowledge, and skills" (p. 305) if PD included "experimental learning, guided practice, and other authentic learning opportunities together with coaching or mentoring" (p. 301).

Table 4. Cont'd.

Ingersoll and Kralik (2004)	Duration of in-service training was quite varied in the studies included in the review.	Mentoring typically involved multiple follow-up sessions with teachers to provide ongoing supports, guidance, and advice.	The synthesis results “provide some empirical support for the claim the assistance for new teachers—and in particular, teacher mentoring programs—have a positive impact on teachers’ [attitudes and knowledge] and retention” (p. 14) when PD includes authentic induction experiences supported by a mentor or coach.
Ingersoll and Strong (2011)	Studies that included more intensive mentoring generally had PD with more positive effects.	“Most studies...provide support for the claim that [ongoing] support and assistance...have positive impacts on teacher outcomes” (p. 201).	The synthesis “studies we reviewed provide empirical support for the claim that induction for beginning teachers, and teacher mentoring programs in particular, have a positive impact” (p. 38) on teacher and student outcomes. Induction that was most effective included mentoring and authentic teaching practices together with extended supports.
Isner et al. (2011)	Coaching was provided, on average, for 6 to 12 months and involved, on average, weekly or bimonthly coaching sessions.	The opportunities to receive ongoing support, guidance, and feedback from coaches were viewed by many early care staff as highly supportive.	The synthesis results showed that positive results ensued when “the activities used in coaching models were tailored to support the goals of coaching [and included] a variety of activities...to maximize the individual relationships between the coach and the practitioner and the opportunity for direct observation, reflection, and modeling of practices” (p. 11).
Joyce and Showers (1995); Showers et al. (1987)	“Teaching [practices] of medium complexity...require 20 or 25 trials in a classroom for 8 to 10 weeks” to learn a new practice (Joyce and Showers, 1995, p. 110).	Coaching is most effective when “it begins in training sessions and continues in the workplace following initial training” (Joyce and Showers, 1995, p. 112).	The synthesis results show that “almost all teachers can take useful information back to their classrooms when training includes four parts: (1) presentation of theory, (2) demonstration of the new [instructional] strategies, (3) initial practice in the workshops, and (4) prompt feedback about their efforts [and that teachers] are more likely to keep and use new strategies and concepts if they receive coaching...on the new ideas in their classrooms” (Showers et al., 1987, p. 79).
Kretlow and Bartholomew (2010)	“The total duration of PD ranged from several hours to 16 weeks” (p. 240).	Coaching was more effective when it included “follow-up observations [and] specific feedback” that was scheduled and provided on a regular basis (p. 292).	The synthesis results show that coaching is most effective when it includes “(1) highly engaged, instructive group sessions; (2) follow-up observation(s); and (3) specific feedback, often including sharing observation data and self-evaluation followed by modeling” (p. 292).

Table 4. Cont'd.

Saylor and Johnson (2014)	“Increased contact hours... produced an increase in the frequency, duration, and depth of reflective practice” (p. 30).	The few studies that included ongoing follow-up supports tended to be associated with more positive teacher outcomes.	The synthesis findings indicate that in-service training is most effective when it includes a “content focus, active [teacher] learning, collective participation, coherence, and necessary duration of activities...for teachers to engage in discourse [reflection] with others, as well as individual reflection on their practices” (p. 37).
Snow-Renner and Lauer (2005)	PD is most likely to “positively affect teacher instruction [if it] is of considerable duration” (80 or more hours) (p. 6).	“Deep changes in teacher instruction...entailed initial participation in a summer institute and follow-up throughout the school year with on-site coaches to encourage teacher reflection and facilitate instructional change” (p. 6).	“Our synthesis...[shows that] professional development is most likely to positively affect teacher instruction [when it] is of considerable duration, focused on specific content and/or instructional strategies..., characterized by collective participation of educators, coherence, and infused with active [teacher] learning” (p. 6).
Yoon et al. (2007); Guskey and Yoon (2009)	“Studies that included more than 14 hours of PD showed a positive and significant effect on student achievement” (p. 3).	“In all but one study follow-up sessions supported the main PD event” (p. 3).	The synthesis findings indicate that workshops or summer institutes which focus on research-based instructional practices, involve active teacher learning experiences, provide teachers’ opportunities to adapt practices to their unique classroom situations, and include follow-up sessions of more than 14 hours of professional development were more likely to produce positive results.
Zaslow et al. (2010)	“In general, models with a high ‘dosage’ of PD tended to be associated with positive outcomes for teachers...and children” (p. 41).	“The general model of PD used in the studies involved initial training for classroom teachers...with follow-up support or training provided through site visits and consultations from [PD] experts” (p. 70).	The synthesis shows that professional development may be more effective when it includes specific articulated objectives of training, practice modeling, authentic practices, collective participation, follow-up of sufficient intensity and duration, and is aligned with standards for practice (coherence).

replication logic to determine the extent to which research on in-service professional development that included an attempt to identify which in-service training characteristics under which conditions were associated with positive teacher or student outcomes. A multiple case design was used to select cases (research syntheses) that included the same or similar in-service professional development characteristics and core features and to determine the extent to which the use or presence of these characteristics or features was related to the same or similar teacher or student outcomes. As noted by Yin (2002), a multiple case study design is analogous to the ability to conduct multiple experiments on the same or related topics or practices.

The focus of analysis in the metasynthesis was the extent to which there was literal replication of the results (pattern matching) between the use of the key characteristics and core features of in-service professional development and either the results reported by the research synthesists or those ascertained by the metasynthesists. The following three sets of characteristics were used to determine the extent to which literal replication (Yin, 2014) was demonstrated: (1) the characteristics of in-service professional development used to promote teacher, educator, and early childhood practitioner understanding and use of content knowledge or instructional practices, (2) the extended supports that were used to reinforce in-service learning, and (3) in-service training of sufficient duration and intensity to ensure in-service recipients had sufficient time and opportunity to learn and become proficient in the knowledge or practices constituting the focus of in-service professional development.

Results showed that replication was demonstrated in all 15 research syntheses for the in-service professional development characteristics (100%), in 13 research syntheses for extended follow-up supports (87%), and in 12 research syntheses for in-service duration and intensity (80%). Taken together, the three sets of findings (evidence) provide support for the contentions made by Donovan et al. (1999), Desimone (2009), Guskey (2002), and others (e.g., Zaslow 2014) with regard to planning and conducting in-service professional development so it includes key characteristics and core features to increase the probability of the effectiveness of in-service training. The fact that nearly all the synthesists of the reviews included in our metasynthesis independently came to the same or similar conclusions about *what matters most* in terms of effective in-service professional development highlights the importance of the particular characteristics identified as most important in terms of changes in teacher and student outcomes. In each of the reviews, the synthesists attempted to identify a subset of studies that yielded positive teacher or student outcomes, and

then proceeded to unpack and disentangle which in-service characteristics under which conditions were associated with positive effects and outcomes.

The metasynthesis, however, was not able to determine whether changes in teacher learning were associated with improvements in student outcomes as purported by a number of research synthesists. As noted in the introduction, a number of research synthesists either explicitly or implicitly hypothesized the types of relationships depicted in Figure 1. This framework and conceptual model constituted the theory-of-change that guided the analysis of the 15 research syntheses described in this paper. There were, however, no attempts to explicitly ascertain the relationships between changes in teacher knowledge, practices, or attitudes and beliefs to changes or improvements in student academic performance, knowledge, or behavior either because the investigators of the primary studies did not do so or the research synthesists did not attempt to relate teacher and student outcomes. This was most certainly a shortcoming of many if not most of the research syntheses and in turn is a shortcoming and limitation of the metasynthesis.

The need for studies, and research syntheses of those studies, where the kinds of relationships depicted in Figure 1 are an explicit focus of analysis are clearly needed if advances are to be made in terms of a more complete understanding of which in-service characteristics implemented under which conditions (e.g., setting, duration, follow-up supports) are directly and indirectly related to teacher and student outcomes. As noted by Yoon et al. (2007), "to substantiate the empirical link between professional development and [student outcomes], studies should ideally establish two points. One is that there are links among professional development, teacher learning and practice, and student learning. The other is that the empirical evidence is of high quality--that the study proves what it claims" (p. 3).

The types of linkages that Yoon et al. (2007) call for are those that implementation science methodologists (Kelly and Perkins, 2012) consider necessary for demonstrating the direct effects of implementation practices (in-service professional development) on the use of intervention practices (e.g., teacher instructional methods), the direct effects of intervention practices on learner outcomes (e.g., student achievement), and the indirect effects of implementation practices on learner outcomes mediated by intervention practices (Dunst et al., 2013; Rudnick et al., 2012). These types of studies, and research syntheses of the studies, are the next generation of research that is likely to shed light on how in-service professional development influences and is related to both teacher and student outcomes. Advances in an understanding of *how* in-service professional development is associated with teacher and student benefits is

most likely to occur if different key characteristics and core features of in-service training are measured and related to outcomes of interest

### Implications for practice

The findings reported in this paper provide additional empirical support for the professional development frameworks described by Browder et al. (2012), Desimone (2009), Dunst and Trivette (2009), Guskey (2014), and others (Gall and Vojtek 1994; Glazer and Hannafin 2006; Joyce and Showers 2002). These frameworks constitute particular ways for planning and conducting in-service training to promote and improve teacher acquisition of content knowledge and instructional practices and, in turn, to enhance child and student learning and competence. Each of the frameworks includes methods and strategies, guidelines and activities, and suggestions for ensuring that in-service professional development includes key characteristics and core features. These characteristics and features include, but are not limited to, the methods and procedures to introduce and illustrate or demonstrate content knowledge or practice to teachers, authentic teacher learning opportunities and teacher reflection on knowledge and skills acquisition, in-service professional development specialist coaching, mentoring, or feedback during the in-service training, extended and ongoing follow-up supports to reinforce in-service learning, and in-service professional development of sufficient duration and intensity to promote teacher mastery and continued use of the content knowledge or practice constituting the focus of in-service training.

A particular finding in the metasynthesis that deserves special attention in planning and conducting in-service professional development is the appropriate dose of in-service teacher training and the need to explicitly include distributed teacher learning opportunities with enough time between opportunities to reflect on and internalize knowledge and skill acquisition and to receive ongoing supports to reinforce teacher mastery. As noted by Zaslow et al. (2010), the dose necessary to produce observable and sustained effects is likely to differ depending on the complexity of the knowledge or practice of in-service professional development, but regardless of complexity, effective in-service professional development includes multiple teacher learning opportunities rather than in-service training in only one or a few sessions.

### Conflict of Interests

The author(s) have not declared any conflict of interests.

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*Full Length Research Paper*

# An analysis of articles about Turkish primary and secondary school curriculum changes between 2005-2013

Gönül Güneş

Karadeniz Technical University, Fatih Faculty of Education, Trabzon, Turkey.

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This study examined the articles about primary and secondary curriculum changes in Turkey, published between 2005-2013 Turkish education journals indexed in SSCI and National Academic Network Information Center (ULAKBIM) databases. Its purpose was to determine the tendencies regarding the following characteristics of the studies: distribution across different journals, year of publication, language of publication, the discipline the study engages, the level of education investigated, the research methods used, the nature of sampling utilized and the contents of studies. It used targeted sampling to select 362 studies and did a content-analysis on them using a classification form. The findings, which are presented in frequency and percentage tables, were as follows: The highest number of articles about education programs was published in 2011. The use of qualitative methods was more frequent and the number of articles investigating more than one dimension of the studied programs was higher than the others. The single data collection was utilized more often and teachers were sampled more frequently. Finally, random sampling was the most common sampling method.

**Key words:** curriculum, articles, curriculum research, analysis, educational journals.

## INTRODUCTION

Turkish Ministry of National Education (MNE) has been implementing fundamental changes in primary and secondary education since 2004, with a view to modernize and reorient primary and secondary education in the light of emerging concepts of information and information age, as well as the development of a perspective of life-long education. These changes were comprehensive; they transformed not only the components of the core curriculum such as Mathematics, Science and Technology, and Turkish, but also other

courses such as Information Technologies, English and Music. MNE (2005) explains at least some of the projected differences between the old programs and the new ones as follows: (a) The paradigm of education has moved away from a behaviorist approach towards a learning approach based on cognitive and structural elements. (b) Engaging subjects with reference to higher orders objectives as the grades progress affecting a spiral structure has been made a priority. (c) Alternative evaluation methods based on constructivism learning

E-mail: [gmgunes@ktu.edu.tr](mailto:gmgunes@ktu.edu.tr)

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theory were also introduced. (d) The emphasis has been shifted away from memorization, and the goals of instruction have been reconceived with an eye on making classes enjoyable, practical, informative and skill-development-oriented. (e) A large part of instruction time has been reserved for student activities where teachers are expected to play primarily a supervisory role, instead of direct instruction. (f) "Behavior" was replaced by "expectations," which is understood as an umbrella term signifying acquired knowledge, skill, comprehension and attitude. (g) With the addition of various activities, curricula have been reoriented towards a student-centered approach. (h) Furthermore, an evaluation approach, which takes into account not only the outcome but also the process that led to the outcome, has been adopted. The pilot study for these new changes was conducted in 2004-2005 academic year in 120 pilot schools in 9 provinces across Turkey. However, nationwide implementation followed the very next year and before the results of the pilot study (Umay et al., 2006) became available. Later curricula were revisited several times and some changes made, yet curricula core philosophy remained the same.

The process of program development does not end with the drafting of a curriculum and textbooks; it in fact continues even in the classroom (Remillard, 1999). Critical evaluation of the efficacy of curricula is vital for developing them further (Demirel, 1997; Gözütok, 2003). One might say that evaluating learning outcomes will be incomplete without first determining curriculum's implementation level, and concluding examination of the process change and teachers' approaches to the curriculum practices. Before a new program can be implemented, it needs to be subjected to a number of tests and a detailed analysis (Jacob and Frid, 1997). However, problems with curriculum assessment are not uncommon in Turkey (Karakuş and Mengi, 2014). Since changes made in the curricula entail significant differences for schools and especially for teachers, it is essential that the changes are embraced by teachers and all stakeholders. Failure of ensuring such an embrace would lead only to waste of time, money, and efforts (Bümen et al., 2014). Fullan and Pomfret (1997) suggest that the following aspects are highly crucial for affecting implementation: whether changes are clear for those who implement the program; whether teachers are eager and qualified to implement the changes; and whether schools available and equipped in terms of resources and organizational structure to implement the changes. In this regard, effective evaluation of curricula that is or will be implemented calls for effective scientific research. Numerous studies were conducted since 2005 to investigate the in-class activities provisioned by curricula and the differing perspectives held by teachers, students, administrators and inspectors. It is imperative to carry out regular analyses of these studies in order to determine which curricula they investigate, what and which periods

they focus on, who or what they sample, how they are done and what their findings are. Such analyses would constitute important contributions to the literature especially in determining the effects of the supposed reforms of 2004, and the new curricula they created. Moreover, such analyses would facilitate further research in the field by helping program development experts and active researchers see their way through the large volume of published studies. After all, researchers typically either have limited access to the literature in their area or have to make a significant time investment to access all the studies that might be relevant to their research (Göktaş et al., 2012a). In this regard, content and meta-analyses make the lives of researchers significantly easier. It is not surprising that such analyses should gather much attention (Lubiensky and Bowen, 2000; Sözbilir and Canpolat, 2006; Çalık et al., 2008; Sözbilir and Kutu, 2008; Ulutaş and Ubuz, 2008; Uzunboylu and Özçınar, 2009; Karadağ, 2009; Lee et al., 2009; Sert, 2010; Çiltaş, 2012; Sözbilir et al., 2012; Kablan et al., 2013; Sözbilir et al., 2013; Wang and Burton, 2013; Çalık and Sözbilir, 2014; Ma et al., 2014; Shintani and Wallace, 2014; Selçuk et al., 2014).

A review of the literature reveals a number of content analyses on education and instruction programs (Cansız-Aktaş, 2013; Hazır-Bıkmaz et al., 2013; Kuzu and Aslan, 2013; Çakıcı and Ilgaz, 2011; Kablan, 2011). One can summarize the objectives and significant conclusions of these analyses regarding the assessment of programs as follows: Çakıcı and Ilgaz (2011) analyzed the dissertations regarding the Science and Technology program put in place from 2004-2005 on. The analysis reviewed 35 master's theses and 1 Ph.D. dissertation completed in the period of 2005-2010. The theses were found to focus mostly on the 4th and 5th grades of primary education. Studies based on a survey model constituted the vast majority (94.4%) of the studies analyzed. In terms of approach, quantitative research was found to greatly outnumber qualitative ones. A review of the dissertation topics revealed a focus on the teachers' opinions.

Another analysis carried out by Kablan (2011) involves a review of the primary school mathematics curriculum. The analysis investigated, with reference to certain variables, the research on the evaluation of the primary school mathematics instruction program implemented within the framework of national education system of Turkey from 2004-2005 on. A significant number of the 53 studies which intended to delve into the primary school mathematics instruction program were found to be master's theses. In a similar vein, the majority of the research was found to be carried out using general survey model, employing quantitative methods, and executed to gather views through data gathering tools such as questionnaires. Furthermore, the analysis revealed that a significant part of the samples studied in the reviewed research works had been sets of teachers.

Aktaş (2013) also carried out a similar analysis, and identified the tendencies prevalent in the master's and Ph.D. theses completed with respect to new mathematics curricula (of primary and secondary schools). In this context, 85 graduate dissertations were reviewed using "5 wh- questions and how" as an investigative tool. The document analysis revealed that the researchers focused mostly on the primary school mathematics curriculum, and that they analyzed the curriculum as a whole. The number of studies was found to rise till 2008, and to exhibit a geographically heterogeneous distribution. Furthermore, the researchers were found to engage mostly in quantitative research and to employ survey method, which offers a particularly descriptive model of research. Their research objectives were, on the other hand, found to converge under the themes of program evaluation, new methods and approaches, and instruction materials and comparisons.

Kazu and Aslan (2013)'s work titled "Review of the Studies on the 'Evaluation-Assessment' aspect of the 2004 Primary Curriculum" is yet another piece of content analysis.

For this purpose, the analysis employed a descriptive survey model, combined with meta-analysis and content analysis used to review the studies. The analysis focuses on 49 conference presentations and 40 articles which were published on the evaluation of the new primary school programs and the complementary evaluation-assessment approaches in the period 2004-2011, and which the researchers were able to access. Kazu and Aslan concluded that the studies were more frequent in the period 2006-2010; that the research models employed were qualitative, based on descriptive surveys; that questionnaires and interviews were the most often utilized tools of data gathering; that target groups were mostly composed of teachers; and that the studies focused mostly in the central and western parts of the country. Furthermore, their analysis discussed the conclusions and recommendations of the studies reviewed. Finally, they developed their own recommendations taking into account the conclusions and recommendations of the studies reviewed, and the considerations based on the studies.

Hazır-Bıkmaz et al. (2013), in their content analysis, reviewed Ph.D. dissertations submitted in the field of Curricula and Instruction with reference to various variables, and analyzed 358 Ph.D. dissertations submitted in this field in Turkey, up to year 2009. They found that the Ph.D. dissertations in the field of Curricula and Instruction mostly investigated the impact of instruction-learning perspectives, methods, and techniques. The other foci of investigation were teacher training programs and practices, and evaluation/efficiency of formal curricula. The analysis also found a significant increase in the number of Ph.D. dissertations in the field of Curricula and Instruction. Furthermore, the studies were found to employ experimental and descriptive research patterns in comparable numbers, whereas mixed methodology was found to

register a significant rise in the recent years.

### ***The objectives and importance of the research***

As it should be clear in the overview above, the number of analyses of the studies investigating curricula has been rather limited. The available content-analyses focus either only on one specific field (such as mathematics, science or technology) or only on one specific aspect (such as evaluation) of all programs. Although these analyses have made significant contributions to the field, their limited numbers and scope renders them inadequate for reaching a definite verdict on the efficacy of the supposed education reform of 2004, and the new programs provisioned in this context. This issue is exacerbated by the fact that in 2013 another revision of the curricula was initiated, barely after 10 years of service for the previous programs. In this environment, it is of vital importance to take a holistic look at the totality of the studies that examined the existing system, and use it to inform and guide the imminent program revisions. In a similar vein, the goal of the current study is to look at the studies on the new curricula that were introduced in the 2004-2005 academic year and investigate various properties (such as distribution across journals, years, language of publication, engaged discipline, studied level of education, research and sampling methods, and publication contents) of these studies. In this regard, we aim to address the following problems:

1. What is the publication frequency of the studies investigating curricula?
2. How are these studies distributed according to their year of publication?
3. How are these studies distributed according to their language of publication?
4. How are these studies distributed according to the disciplines they engaged?
5. How are these studies distributed according to the level of education they investigate?
6. How are these studies distributed according to their contents?
7. Which research methods were applied in these studies?
8. Which data collection instruments were commonly used in these studies?
9. What are the sampling characteristics (sample groups, sample size and the geographic location) of these studies and how do they vary?
10. What are the data analysis methods used in these studies?

### **METHOD**

The objective of the present study, which examined the articles published on curricula in Turkey, and indexed in SSCI and ULAKBIM databases, is descriptive. Descriptive studies attempt at

describing and explaining “what” objects, entities, institutions, groups and various other things are (Kaptan, 1998). While doing this explanation, descriptive content analysis (Çalık and Sözbilir, 2014), which follows a systematic way including the depictive assessment of tendency and research results of a specific issue, is used. In this respect, it is aimed to analyze and organize the qualitative and quantitative studies conducted independently and to determine their overall tendencies (Cohen et al., 2007; Çalık and Sözbilir, 2014; Selçuk *et al.*, 2014). The author followed the following steps in the study and in the given order: (1) identify the journals which published studies on curricula, using SSCI and ULAKBIM databases; (2) conduct a search spanning 362 articles through these journals and archived the articles that fit the description. So as to minimize the risk of missing any relevant studies, he repeated the same research using the same set of journals, after a respite of three months. After gathering the data, they were analyzed; the findings were compiled as a report based on the analyses.

### Scope of research

Since the pilot application of the reformed curricula was launched in 2004, the first studies addressing them were published in year 2005. So, the analysis focuses on studies that were published between 2005 and 2013. The sample consists of studies published in 26 journals which offer full-text access online. Three among these journals are published in Turkey and indexed in Web of Science SSCI. A full list of the journals we examined and the date brackets of the search are given in Appendix-1. In the selection of journals, it has been paid attention to the continuous publishing and not to contain a particular area or one discipline.

The author primarily relied on online access service of the journals to recover the full-text of the studies the search yielded. However, on occasions when online access was not an option, the author obtained and examined a print copy of the relevant study. The author used the following criteria regarding the selection of the studies included in the analysis.

1. Only those studies which investigated the primary and secondary curricula implemented since the 2004-2005 academic year were analyzed.
2. The “title,” “summary,” “abstract” and “keyword” sections of published studies were searched for phrases such as the following: “öğretim programı” [i.e. “curriculum”], “müfredat” [i.e. “curricula”], “curriculum,” or “program.” those studies, for which the search yielded no results for these phrases in the aforementioned sections were excluded from the analysis.
3. So as to achieve the objective of this study, the author analyzed the studies that were published in Turkish journals based in the indexed SSCI and ULAKBIM.

### Data collection tool

An article classification form was used as data collection tool. When the literature is analyzed, it is seen that similar ways of collecting data are improved in descriptive content analysis (Sözbilir and Canpolat, 2006; Sözbilir et al., 2012; Hazır-Bıkmaz et al., 2013; Polat, 2013). Besides, it is determined that researchers use similar tools by making some changes in accordance with their purposes in developed data collection tools. Sözbilir and Kutu, 2008; Çiltaş, 2012; Çiltaş et al., 2012; Gökteş *et al.*, 2012a; Gökteş *et al.*, 2012b; Selçuk *et al.*, 2014). Accordingly, it is inspired from the “publication classification form” originated by Sözbilir et al. (2012), which is used in development of article classification form as a data collection tool. After the form was designed according to the scope and purpose of the study, two experts in classification revised the form to its final shape. The article classification form consists of the following sections: definitive information about the study, discipline

engaged, level of education under analysis, subject of the study, geographic region where the study was conducted, research methods, data collection tools and data analysis techniques used by the study, and the keywords specified by the authors of the study in question.

However, as the current study intends to make a content analysis for the articles concerning curricula, the form developed through the procedure described above had to be revised in line with the purpose. The end result comprised the following sections: (a) research method, (b) data collection tools, (c) sample, (d) data analysis methods, and (e) keywords for the study, as well as (f) the discipline to which the curriculum belongs, (g) the year or grade where the curricula is used, (h) contents of the study, and (i) the region where the study was carried out.

### Analysis of Data

Content-analysis method was used for the analysis. The author searched through the education journals indexed by SSCI and ULAKBIM databases, compiled a sample of studies published between 2005-2013 on curricula, and conducted content-analysis. Content-analysis entails a detailed examination of the data collected for the purposes of the. Through this detailed examination, the patterns of similarity found in the data are identified, re-arranged and interpreted according to concepts and themes guiding the analysis (Yıldırım and Şimşek, 2006). In order to ensure the soundness of the analysis, each study was analyzed twice, with a 3 month interval in between. Miles and Huberman (1994) reliability scale was used to calculate the reliability of the findings where, (reliability=number of agreements/(total number of agreements + disagreements). The lowest reliability level computed for all sub-coding was (0.79). When reliability measure is above 70%, it is generally recognized as sufficiently reliable for research purposes (Miles and Huberman, 1994, 64). Based on this, the findings are reliable. On occasions where a study examined did not specify/explain certain technical details (research methodology, sampling technique, etc.) an expert specializing in mathematics education was consulted; a co-analysis of the study in question was conducted. The data were processed and thus compiled through SPSS 16.0 statistical analysis software, and the findings were presented in the form of frequency and percentage tables in the next section.

### FINDINGS

These findings are derived from a multi-variable analysis of the studies which investigate curricula, and which were accessed through SSCI and ULAKBIM databases. The findings are presented in the following order: the distribution of sampled studies according to the journal of publication, year of publication, language of publication, engaged discipline, studied level of education, study content, research approach, data collection tools, sampling techniques (sample selection, sampled group, sample size, sampled region and province), and data analysis methods utilized. The findings are presented in separate tables containing frequency and percentages for each tabulated item. The study sample consists of 362 studies investigating “curriculum(s)” which were published in the period 2005-2013 in 26 national or international journals. Appendix-1 presents the distribution of studies according to the journal of publication.

**Table 1.** Distribution of studies according to year and language of publication.

Years	Language of Publication		Frequency (f)	Percentage (%)
	English	Turkish		
2005	0	21	21	5,8
2006	1	17	18	5,0
2007	2	38	40	11,0
2008	2	33	35	9,7
2009	0	40	40	11,0
2010	2	54	56	15,5
2011	0	57	57	15,7
2012	3	44	47	13,0
2013	2	46	48	13,3
Total	12	350	362	100,0

Appendix- 1 indicates that the largest fractions (16.6%) of studies were published in National Education, which is followed by Educational Sciences: Theory & Practice (KUYEB) (8.6%), Journal of Kırşehir Education Faculty (8.0%), Elementary Education Online (6.6%), Hacettepe University Faculty of Education Journal (5.5%) and Kastamonu University Kastamonu Education Journal (5.5%). The journals that published the fewest number of sampled studies are Ege Journal of Education (0.6%) and Mersin University Journal of the Faculty of Education (0.8%).

Findings also indicate that the annual publication rate of studies investigating the curricula enacted in 2005 increased after 2007 (Table 1). The year during which the highest number of studies was published was 2011, which was followed by a decline in the number of published studies. The year during which the lowest number of studies was published was 2006. The ratios of the number of studies published during each year versus the total number of published studies are respectively: 15.7% in 2011, 15.5% in 2010, 5.8% in 2005, and 5% in 2006. Table 1 indicates that the language of publication of 350 (96.7%) out of 362 studies is Turkish. The language of publication of the remaining 12 (3.3%) is English.

Table 2 presents the findings of the analysis of the studies according to the disciplines of education they engaged. Since several among the studies engaged more than one discipline of education at once, the author used the frequency values associated with each item in the table to signify the number of studies to which it applies. This explains why the total for Table 2 (371) differs from the sample size ( $n=362$ ).

Table 2 indicates that the highest number (19.3%) of studies engaged curricula generally without focusing on programs used in a specific discipline. These studies amount to 70 out of 362. The table also indicates that the disciplines that are most commonly engaged by studies are Science and Technology (14.8%), Social Sciences (14.3%), Mathematics (13.7%) and Turkish (10.8%). The table also makes it clear that the following disciplines

were also engaged by studies: Chemistry (3.5%), Social Studies (3.0%), Geography (2.7%), Physics (2.4%), History (1.9%), Information Technologies/Computing (1.9%), Biology (1.6%), English (1.6%), Music (1.3%), Turkish Language and Literature (1.1%), Physical Education (0.8%). The disciplines that were engaged by one or two studies (Religious Culture and Ethics, Philosophy, Geometry, Visual Arts, History of Republican Reforms, Logic, Media Literacy, Foundations of Programming, Art History, Counseling, Sociology, Technology and Design, Basic Sports Education, Civic Education and Democracy) are grouped under the item.

“Other.” The studies that engage curricula in these other disciplines amount to 5.7% of the total.

Table 3 presents the distribution of the studies according to the level of education investigated. The studies' focus was most pronounced concerning primary education (1<sup>st</sup>-5<sup>th</sup> grade). 119 studies (32.9%) investigated the first phase of primary education (1<sup>st</sup>-5<sup>th</sup> grade), 85 studies (23.5%) investigated the entirety of primary education (1<sup>st</sup>-8<sup>th</sup> grade), 82 studies (22.7%) investigated the second phase of primary education (6<sup>th</sup>-8<sup>th</sup> grade) and 64 studies (17.7%) investigated secondary education. 9 studies (2.5%) investigated all grades between 1<sup>st</sup> and 12<sup>th</sup>. 2 studies (0.6%) investigated the curricula in the combined classroom setting whereas 1 study (0.3%) investigated the 6<sup>th</sup>-12<sup>th</sup> grade interval, again as indicated by Table 3.

Table 4 presents the distribution of the studies according to their contents. A large portion (31.2%) of the studies investigating curricula engaged in multidimensional program evaluation. Other studies display the following content-related characteristics: 22.7% engage the learning and/or instruction process, 10.2% engages in an examination of program contents, 9.4% address evaluation, 6.4% engage how the program is oriented towards textbooks, 5.2% compare previous and current curricula, 4.1% aim to contribute to program development, 3.6% engages in international program

**Table 2.** Distribution of studies according to disciplines they engaged in.

Discipline	Frequency (f)	Percentage (%)
General	70	18.9
Science and Technology	55	14.8
Social Sciences	53	14.3
Mathematics	51	13.7
Turkish	40	10.8
Chemistry	13	3.5
Social Studies	11	3.0
Geography	10	2.7
Physics	9	2.4
History	7	1.9
Information Tech./Computing	7	1.9
Biology	6	1.6
English	6	1.6
Music	5	1.3
Turkish Lang. and Literature	4	1.1
Physical Education	3	0.8
Other	21	5.7
Total	371	100.0

**Table 3.** Distribution of studies according to studied level of education.

Studied Level of Education	Frequency (f)	Percentage (%)
Primary (1 <sup>st</sup> -5 <sup>th</sup> grade)	121	33.4
Primary (1 <sup>st</sup> -8 <sup>th</sup> grade)	85	23.5
Primary (6 <sup>th</sup> -8 <sup>th</sup> grade)	82	22.7
Secondary (9 <sup>th</sup> -12 <sup>th</sup> grade)	64	17.7
All Grades (1 <sup>st</sup> -12 <sup>th</sup> grade)	9	2.5
Other	1	0.3
Total	362	100.0

comparison, 2.8% conduct literature analysis, whereas 1.9% investigates the expectations associated with curricula. The table also indicates that there were studies in the sample whose content-related characteristics do not fall under any of these categories, which were tabulated as "Other."

Table 5 summarizes their findings on the research approaches adopted by the studies published on curricula. These findings indicate that more than half (53%) of the sampled studies adopted a qualitative approach to research, whereas quantitative studies amounted to 40.6%. The studies that adopted a mix of qualitative and quantitative approaches are in the minority (6.4%).

Table 6 presents the findings of the analysis of the sampled studies according to the data collection tools they employed. Since several among the studies investigated more than one discipline of education at once, the researchers used the frequency values associated with each item in the table to signify the number of studies to

which it applies. Some articles utilized more than one data collection tools. This is why the number of articles in Table 6 is greater than the total number of the articles in the sample. This fact accounts for the difference of the grand total shown on Table 6 (405) in comparison to the sample size (n=362).

Table 6 indicates that a large portion (35.1%) of the sampled studies use surveys as a data collection tool, which is followed by the use of documentation (curricula, textbooks, theses, newspapers, etc.) (30.9%), interviews (21%), attitude measurement scales (4.4%), success tests (3.7%), observation (3.0%) and alternative measurement tools (worksheets, conceptual puzzles, self-assessment forms) (2.0%).

Table 7 presents the distribution of the studies according to sampling technique. Researchers had a pronounced preference for random sampling (29.3%), which is followed by the use of selective sampling (11%), sampling that prioritizes convenience (5.2%) and other sampling techniques (8.6%). The remainder either did not

**Table 4.** Distribution of studies according to contents.

<b>Study Content</b>	<b>Frequency (f)</b>	<b>Percentage (%)</b>
Multidimensional Program Evaluation	113	31.2
Learning/instruction Process	82	22.7
Content of Curriculum	37	10.2
Evaluation	34	9.4
Textbook Utilization	23	6.4
Comparison between Previous and Current Programs	19	5.2
Contribution to Program Development	15	4.1
International Program Comparison	13	3.6
Literature Analysis	10	2.8
Expectations Associated with Curricula	7	1.9
Other	9	2.5
<b>Total</b>	<b>362</b>	<b>100.0</b>

**Table 5.** Distribution of studies according to approach.

<b>Approach</b>	<b>Frequency (f)</b>	<b>Percentage (%)</b>
Qualitative	192	53.0
Quantitative	147	40.6
Mixed	23	6.4
<b>Total</b>	<b>362</b>	<b>100.0</b>

**Table 6.** Distribution of studies according to data collection tool used.

<b>Data Collection Tools</b>	<b>Frequency (f)</b>	<b>Percentage (%)</b>
Survey	142	35.1
Documentation	125	30.9
Interview	85	20.9
Attitude Measurement Scale	18	4.4
Success Test	15	3.7
Observation	12	3.0
Alternative Measurement Tools	8	2.0
<b>Total</b>	<b>405</b>	<b>100.0</b>

**Table 7.** Distribution of studies according to sampling technique.

<b>Sampling Technique</b>	<b>Frequency (f)</b>	<b>Percentage (%)</b>
Random	106	29.3
Purposive	40	11.0
Convenience	19	5.2
Other	31	8.6
Unspecified	53	14.6
No Sampling	113	31.2
<b>Total</b>	<b>362</b>	<b>100.0</b>

specify a sampling technique (14.6%) or did not use sampling (31.2%) at all. Tables 8 and 9 present the

distribution of the analyzed studies according to the groups they sampled and according to sample size. Since several among the studies involved more than the sampled group or sample size, the author used the frequency values associated with each item on the table to signify the number of studies to which it applies. This explains why the totals for Table 8 and 9 (389) differ from the sample size ( $n=362$ ). Table 8 indicates that the studies sampled teachers (48.1%) more often than other groups, which were students (12.6%), prospective teachers (3.3%), legal guardians (2.3%), inspectors (1.8%), school administrators (1%) and academics (0.5%). Similarly, Table 9 indicates that the most common sample sizes were in the 31-100 (19.5%) and 101-300 (16.7%) ranges. These were followed closely by the 11-30 range (11.8%) and the 301-1000 interval (13.4%). The

**Table 8.** Distribution of studies according to sampled groups.

Sample	Frequency (f)	Percentage (%)
Teacher	187	48.1
Student	49	12.6
Prospective Teacher	13	3.3
Legal guardian	9	2.3
Inspector	7	1.8
School Administrator	4	1.0
Academic	2	0.5
Document	118	30.3
Total	389	100.0

**Table 9.** Distribution of studies according to sample size.

Sample Size	Frequency (f)	Percentage (%)
1-10 People	32	8.2
11-30 People	46	11.8
31-100 People	76	19.5
101-300 People	65	16.7
301-1000 People	52	13.4
Documentation	118	30.3
Total	389	100.0

least number of sample sizes were found in the 1-10 range. Again as Table 9 indicates, there have been no studies whose sample size was greater than 1000 individuals. Finally, the table also indicates that 30.3% of the studies did not employ sampling. As these studies engaged documentation directly either by way of article analysis or via workgroups dedicated to documentation review, the author grouped them together under the item "Documentation." Table 10 presents the distribution of the studies according to geographic location. The geographic region that hosted most studies was Central Anatolia (15.7%), which was followed by Marmara (10.2%), Black Sea (9.9%), Aegean (6.9%), Eastern Anatolia (6.6%), Mediterranean (2.8%), Southeastern Anatolia (2.8%) regions. Since 113 of the analyzed studies (31.2%) do not use sampling and instead utilize textual analysis or literature reviews, they are not limited to or associated with any region or province as far as sampling is concerned. Finally, Table 10 also indicates that 3 studies (0.8%) used samples from other counties for the purposes of comparing 2 to 3 different countries and their curricula. Table 11 presents the distribution of studies according to the number of data analysis methods they utilized. The overwhelming majority (88.1%) of the studies conducted on curricula utilized a single data analysis method, which is followed by 11.6% utilizing two methods, and 0.3% utilizing three (Table 11). There were no studies utilizing more than three data analysis methods.

**Table 10.** Distribution of studies according to geographic location.

Geographic Region	Frequency (f)	Percentage (%)
Mediterranean	10	2.8
Eastern Anatolia	24	6.6
Aegean	25	6.9
Southeastern Anatolia	10	2.8
Central Anatolia	57	15.7
Black Sea	36	9.9
Marmara	37	10.2
More than one region	25	6.9
Nation-wide (Turkey)	17	4.7
Unspecified	5	1.4
No Sample	113	31.2
Different Country	3	0.8
Total	362	100.0

**Table 11.** Distribution of studies according to number of utilized data analysis methods.

Number of Data Analysis Methods	Frequency (f)	Percentage (%)
Single Data Analysis Method	319	88.1
Two Distinct Data Analysis Methods	42	11.6
Three Distinct Data Analysis Methods	1	0.3
Total	362	100.0

Table 12 presents the distribution of studies according to the data analysis methods they used. Qualitative data analysis is more common (53.9%) than quantitative (46.1%). Among the studies that utilized qualitative data analysis, 9.1% of the entire sample used the descriptive analysis method whereas 44.8% did content-analysis. Among the studies that utilized quantitative data analysis, 24.4% of the entire sample used the descriptive statistics method whereas 21.7% opted for predictive statistics. The analysis also revealed that the researchers using descriptive statistics preferred reporting their findings in terms of frequencies and percentages, whereas predictive statistical studies used additional statistical notions such as the t-test, ANOVA, and correlation.

## DISCUSSION AND CONCLUSION

The current study reviewed 362 articles published in 26 international and national journals publishing in Turkish. The reviewed articles were analyzed with reference to their publication frequencies, year of publication, language of publication, disciplines engaged, level of education analyzed, contents, research methods, data collection tools, sampling characteristics, and data

**Table 12.** Distribution of studies according to data analysis method.

Data Analysis Methods		Frequency (f)	Percentage (%)
		219	53.9
Qualitative Data Analysis	Descriptive Analysis	37	9.1
	Content-Analysis	182	44.8
		187	46.1
Quantitative Data Analysis	Descriptive Statistics	99	24.4
	Predictive Statistics	88	21.7
Total		406	100.0

analysis methods. The findings of the analysis show that the highest number of articles regarding curricula was published on National Education. In comparison to the remaining journals, KUYEB, Journal of Kırşehir Education Faculty, Elementary Education Online and Hacettepe University Faculty of Education Journal also published a higher number of articles on curricula. One can argue that National Education Journal accounted for the largest number of articles because it is the publication owned by the Ministry of National Education.

A review of the year of publication data revealed that the highest numbers of articles were produced in years 2011 and 2010. Taking into account the fact that the curricula were applied throughout the country from 2005 on, it is only natural to have a five year gap between the introduction of the variable and an intensification of studies, given the time required for data gathering and analysis processes and the journals' review procedures. Furthermore, a second increase in the number of publications in 2013 can be explained away by the revisions discussed and introduced about the curricula providing another incentive for the researchers to delve into this topic. This finding, however, diverges from the conclusions of other analyses of the research on curricula. For instance, Cansız-Aktaş (2013) found through the analysis of the graduate theses regarding mathematics curricula, which the number of theses investigating the issue increased till 2008, and thereafter showed a decrease. On the other hand, Kablan (2011) states in the study analyzing the presentations made in and published by congresses as well as the graduate theses which the researcher was able to access, that the research volume was higher on the year which saw the mass implementation of the curricula in all primary schools, only to subside gradually as the years progress. It is possible that the conclusions of both analyses conflict with each other, as well as with the present analysis, as Kablan's (2011) and Cansız-Aktaş's (2013) works were focused on the curriculum of a specific discipline. Moreover, the fact that one analyzed graduate theses, while the other analyzed a different set of studies (theses, articles, presentations) on primary school mathematics curriculum may contribute to the explanation of the difference.

The analysis found that 96.7% of the studies were

published in Turkish, while 3.3% were published in English. A vast majority of the articles published in Turkish is possibly related with the fact that most studies were published in national journals. A detailed analysis of the articles published in English language revealed the journals indexed in SSCI as the publication involved. A similar conclusion was reached by Selçuk *et al* (2014) analyzing the contents of the articles published on Education and Science journal. The researchers underline the fact that recent years saw a surge of English as the language of publication of studies in this journal.

The majority of the articles cover the whole gamut of curricula, and not a specific field. Following these general articles are groups of articles to cover Science and Technology, Social Sciences, Mathematics, and Turkish curricula. This picture indicates that the researchers focus more on the curricula for the courses which are considered as the core of education. Furthermore, the analysis revealed the presence of articles covering the curricula of many other courses taught in primary school's first (1<sup>st</sup>-5<sup>th</sup> grades) and second (6<sup>th</sup> - 8<sup>th</sup> grades) stages and in secondary schools. Moreover, the articles in the limelight exhibited more of a focus on the curricula of the first stage of primary school (1<sup>st</sup> - 5<sup>th</sup> grades). This group was followed by articles covering the curricula for the whole primary school education (1<sup>st</sup> - 8<sup>th</sup> grades) and the second stage of primary school (6<sup>th</sup> - 8<sup>th</sup> grades).

It is observed with reference to the level of education shows that the articles covering the curricula of the secondary schools are in the minority compared to those investigating the curricula for primary schools. This finding is similar to the conclusions of Cansız-Aktaş's (2013) study analyzing the theses on mathematics curricula. Cansız-Aktaş's (2013) analysis found that the researchers mostly focus on the mathematics curriculum for primary schools, and had a tendency to focus on the whole curriculum.

One of the significant findings of the study concerns the contents of the articles analyzed. The articles concerning the curricula assessed the curricula as a whole, discussing more than one aspect at a time. In a parallel vein, the studies covering the learning-teaching process are more numerous compared to the studies discussing other aspects of the curricula (i.e. contents, evaluation-assessment, and gains). Moreover, there are studies

which investigate the connection between the curricula and the textbook sets (i.e. teacher's guide book, student textbook, and student exercise book). There are also studies, albeit in smaller numbers, which compare the curricula against previous curricula or curricula applied in other countries. Finally some articles were found to engage in literature review regarding the curricula, or the development of curricula.

More than half of the studies on curricula employed qualitative research perspectives. The conclusions of existing research show that the qualitative studies are mostly based on textual analysis regarding the programs, investigating one or more facets of the curricula. The higher number of qualitative studies for in-depth review and evaluation of curricula is considered a natural conclusion of the research on curricula. On the other hand, a review of literature reveals the numerical superiority of quantitative works in the group of content analysis studies (Göktaş *et al.*, 2012a; Hazır-Bıkmaz *et al.*, 2013; Polat, 2013). Kaban's analysis of the studies on primary school mathematics curriculum also revealed a higher number of quantitative works. On the other hand, the present analysis revealed a preference away from quantitative or mixed research perspectives among the articles investigating the curricula. One can forcefully note that the number of articles which employ a mixed perspective is no more than a few. Selçuk *et al.* (2014) and Çiltaş *et al.* (2012) also found a tendency to avoid mixed approaches. Against this background, it is possible to claim that mixed perspective studies have yet to become commonplace in Turkey. Moreover, no meta-analysis or meta-synthesis works were found among the articles analyzed.

The most common tool of data collection in the articles published on curricula had been surveys. These were followed by the use of various documents. In this context, curricula, textbook sets (i.e. teacher's guide book, student textbook, student exercise book), curricula of other countries, student files, exam questions, and collected works in the literature were employed as the objects of document analysis. Moreover, interview forms, attitude and achievement tests, observation forms and alternative assessment tools were also used for data collection. Surveys as a data collection tools make it possible to reach out to a substantial sample, and to save time and efforts while doing so. Data gathered through surveys can be analyzed more easily and quickly compared to the data derived from other tools. These advantages are arguably at the forefront when the researchers opt for surveys as their data collection tools. Polat (2013), Göktaş *et al.* (2012b), Kablan (2011), Kurtoğlu and Seferoğlu (2011), Sert (2010), and Alper and Gülbahar (2009) also conclude that the surveys are the data collection tool for the majority of studies. However, the preference for surveys as the data collection tool, despite the majority of the researchers employs a qualitative research perspective, may indicate intent to depict the

whole picture while focusing on the details over a smaller sample.

The majority of the curricula-related articles reviewed herein did not engage with sampling, and instead collected data over documentation. The articles which did work with samples, on the other hand, employed random sampling as the choice of the majority of the researchers. The affordability of this method of sampling is arguably the underlying reason for this finding. Selçuk *et al.* (2014) also found in their content-analysis that random sampling was more frequent among the studies published in Education and Science. Furthermore, other purposive, convenience, and other sampling techniques were also utilized. In addition, some researchers were found to withhold the specifics of the sampling technique employed.

The analysis of the studies under the limelight revealed that the researchers mostly dealt with teachers, followed by the students, as the members of their samples. This finding concurs with the findings reached by Kablan (2011) in the analysis of the studies concerning mathematics curriculum. Moreover, there are a few studies where the sample was composed of trainee teachers, parents, inspectors, school administrators, and academicians. Against this background, one can conclude that the views and experiences of the teachers and students, who are the most important stakeholders with respect to the curricula, command the emphasis in the studies. However, the views and experiences of other stakeholders, in comparison to teachers who are the implementers of the curricula, can be considered extremely underrepresented.

The sample sizes of the studies revealed a conglomeration in the 31-100 range. This finding is similar to that of Çiltaş *et al.* (2012) in their content analysis on the studies published with respect to the mathematics education. Even though the articles were sometimes based on data from all over the country, the sample sizes were always found to be limited. No studies engaged with a sample exceeding a population of 1000.

Samples from the Central Anatolian region were the most frequent ones, whereas those from Southeastern Anatolia were rarest. The geographical distribution of samples is arguably a product of the geographical locations of the faculties of education in Turkey. The provinces which produced the highest numbers of samples in their respective regions –Ankara, Istanbul, Trabzon, İzmir, Erzurum, Adana, and Diyarbakır– are also the provinces where the faculties of education are located. It is probable that the researchers have selected their samples from within the provinces where they carried out their studies.

There is also a group of studies, albeit very few in numbers, which engage in a comparison of the curriculum of various countries.

This analysis reviewed the set of studies with reference to the data analysis methods as well. The studies on

curriculum mostly employed the qualitative content analysis method for the analysis of data. Quantitative studies on the other hand employed descriptive (frequency, percentile, arithmetic mean) and predictive (t-test, ANOVA) statistics. Another crucial finding of the analysis is that the overwhelming majority of the studies in question employed a single data analysis method. Just one study utilized three distinct types of data analysis methods. This result may raise concerns about validity and reliability of the studies. The use of just a single data analysis method rules out the triangulation method, which helps ensure validity and reliability of the research. Çiltaş et al. (2012) also observed that the single data analysis method was the frequent choice among researchers.

Finally, one can note that this analysis of the studies on the curricula, which was put into application in 2004 through a change in the basic perspective regarding curricula in Turkey, and published in the period 2005-2013, is more comprehensive in terms of number of journals and articles covered, in comparison to similar analyses. Moreover, the analysis adopted an integral perspective on the curricula as well as more comprehensive research problems. The findings thus reached will contribute to the literature with an understanding of the distribution of studies of curricula per each discipline, and will make it possible to unearth weaknesses and strengths in existing literature. Therefore, one can think of this analysis as a guiding light for future studies. However, it could be expected from viewed article results to help program development experts about whether targeted innovation and changes take place or not. Moreover, the competence and willingness of the implementers of programs could be presented. In addition, it could be provided information about organizational structure of the schools and necessary infrastructure support for implementation. However, the results were not incorporated in the purpose of the research. The reviews of article results were not analyzed in the scope of study. Future studies will contribute to the program development experts in the sense of evaluation of the programs.

The following recommendations may be proposed in line with the findings:

The studies concerning primary school curricula were more numerous, and focused on the curricula of four core courses (Science and Technology, Social Sciences, Mathematics, and Turkish). Therefore, an increase in the number of publications concerning the secondary school curricula should be called for.

This analysis reviewed the studies published in the education journals published in Turkey and indexed in SSCI and ULAKBİM databases. Future research may expand this scope, and include master's and Ph.D. theses submitted as well, as objects of content analysis.

Furthermore, the articles regarding the curricula put in place through the revisions in 2013 may also be analyzed.

The studies published so far mostly investigated more than one aspect of the curricula. However, a more focused approach investigating a single aspect (learning-teaching process, contents, gains, evaluation-assessment) may lead to a more detailed and in-depth set of studies.

Most of the studies were found to employ surveys and documents as the means of data collection. Future studies should employ assessment tools such as knowledge, skill, attitude or product assessments, which may provide a better understanding of the curriculum's contribution to the students' cognitive, affective, and psychomotor developments.

A review of the studies regarding curriculum revealed the need to engage in better sampling to represent the whole country, through an expansion of the sample size. In this context, wider samples would be asked of future studies. In this context, the samples are often selected from the provinces where a faculty of education is located. Increases in the numbers of studies focusing on other provinces should contribute to the development of curricula.

The content analysis of the studies revealed the need to diversify the data collection and data analysis techniques utilized. Specifically, an emphasis on the data collection and analysis in the graduate courses offered to young researchers would bring improvements against this background.

## Conflict of Interests

The author have not declared any conflict of interests

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## Appendix 1.

Journals	Years	(f)	(%)
Ankara Üniversitesi Eğitim Bilimleri Fakültesi Dergisi	2005-2013	11	3,0
Buca Faculty of Education Journal (Buca Eğitim Fakültesi Dergisi)	2005-2013	11	3,0
Cukurova University Faculty of Education Journal (Çukurova Üniversitesi Eğitim Fakültesi Dergisi)	2005-2013	6	1,7
Dicle University Journal of Ziya Gökalp Faculty of Education (Dicle Üniversitesi Ziya Gökalp Eğitim Fakültesi Dergisi)	2006-2013	12	3,3
Ege Journal of Education (Ege Eğitim Dergisi)	2005-2013	2	0,6
Education and Science Journal (Eğitim ve Bilim)	2005-2013	10	2,8
Journal of Research in Education and Teaching (Eğitim ve Öğretim Araştırmaları Dergisi)	2012-2013	8	2,2
Erzincan University Journal of Education Faculty (Erzincan Üniversitesi Eğitim Fakültesi Dergisi)	2005-2013	12	3,3
Eurasian Journal of Educational Research (EJER)	2005-2013	4	1,1
Gazi University Faculty of Education Journal (Gazi Üniversitesi Eğitim Fakültesi Dergisi)	2005-2013	13	3,6
Hacettepe University Faculty of Education Journal (Hacettepe Üniversitesi Eğitim Fakültesi Dergisi)	2005-2013	20	5,5
Elementary Education Online (İlköğretim Online)	2005-2013	24	6,6
İnönü University Faculty of Education Journal (İnönü Üniversitesi Eğitim Fakültesi Dergisi)	2007-2013	5	1,4
Kastamonu University, Kastamonu Education Journal (Kastamonu Eğitim Dergisi)	2006-2013	20	5,5
Journal of Kazım Karabekir Education Faculty (Kazım Karabekir Eğitim Fakültesi Dergisi)	2005-2013	9	2,5
Journal of Kırşehir Education Faculty (Kırşehir Eğitim Fakültesi Dergisi)	2005-2013	29	8,0
Educational Sciences: Theory & Practice (KUYEB)	2005-2013	31	8,6
Marmara University Journal of Educational Sciences (Marmara Üniversitesi Eğitim Bilimleri Dergisi)	2005-2013	13	3,6
Mehmet Akif Ersoy University Journal of Education Faculty (Mehmet Akif Ersoy Üniversitesi Eğitim Fakültesi Dergisi)	2006-2013	14	3,9
Mersin University Journal of the Faculty of Education (Mersin Üniversitesi Eğitim Fakültesi Dergisi)	2005-2013	3	0,8
National Education (Milli Eğitim Dergisi)	2005-2013	60	16,6
Necatibey Faculty of Education, Electronic Journal of Science and Mathematics Education (Necatibey Eğitim Fakültesi Elektronik Fen ve Matematik Eğitimi Dergisi)	2007-2013	10	2,8
Ondokuz Mayıs University Journal of Faculty of Education (Ondokuz Mayıs Üniversitesi Eğitim Fakültesi Dergisi)	2009-2013	9	2,5
Pamukkale University Journal of Education (Pamukkale Üniversitesi Eğitim Fakültesi Dergisi)	2005-2013	7	1,9
Uludağ University The Journal of Education (Uludağ Üniversitesi Eğitim Fakültesi Dergisi)	2005-2013	7	1,9
YYU Journal of Education Faculty (Yüzüncü Yıl Üniversitesi Eğitim Fakültesi Dergisi)	2005-2013	12	3,3
Total		362	100

*Full Length Research Paper*

## Developing competency of teachers in basic education schools

Rerngrit Yuayai\*, Pacharawit Chansirisira and Kochaporn Numnaphol

Maharakham University, Thailand.

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**This study aims to develop competency of teachers in basic education schools. The research instruments included the semi-structured in-depth interview form, questionnaire, program developing competency, and evaluation competency form. The statistics used for data analysis were percentage, mean, and standard deviation. The research found that factors of competency were: 1) the persistence in learning management and work practice, 2) competency in planning, goal setting, learning management and work practice, 3) competency in ICT use in learning management and work practice, 4) creativity of learning management, 5) competency in following up and evaluation in knowledge management and work practice, and 6) competency in improving and developing the learning management and work practice. Program for developing competency included 9 factors and 7 learning units, total of 200 h. Program could develop and enhance the teachers by posttest score higher than those pretest score.**

**Key words:** Achievement competency, factor of achievement competency, program for developing the teacher's achievement competency, basic education.

### INTRODUCTION

The organizational staffs were the most important persons of organization in every age or period whether in the public or private sector. The staffs could cause their organization to be successful or failure. If the organization included the high quality staffs, that organization would be successful. Therefore, it was necessary for every organization to provide instrument for recruiting the quality staffs as well as developing them to be higher efficient work practitioners (Chanchai, 2009). The competency was group of knowledge, skill, competence, attitude, belief, habit, motivation, and personality being hidden in the persons, which would be reflected to be

visible from their working behavior, as measurable and observable. Consequently, the persons would be able to create the excellent performance as well as cause the goal accomplishment in the organization (Ozcelik and Ferman, 2006). The competency evaluation was an important instrument for developing and following-up the work performance of staffs in the organization (Tillema, 2003). The persons with high achievement competency would have 3 aspects of high working attribute including: quality of work, patience in working, and appropriate expectation in work success with their own ability. As a result, it would accomplish the organizational goal

\*Corresponding author. E-mail: r.yuayai@gmail.com.

(Atkinson, 1966). The teachers were major factors in school which would influence the students' learning achievement most (McKinsey, 2007; Samkosed, 2010; Ponsima, 2011).

The country with high learning achievement would be more likely to have higher economic growth. In the meanwhile, the country with good quality educated population, the level of democracy and political and social stability would be higher (Hanushek and Rivkin, 2010). The important characteristic of persons in teaching profession were to know their role and duty as well as work task, promotion in potentiality and competency of teachers, learning persons, and academic leaders (The Secretariat of the Teacher Council of Thailand, 2006). The achievement competency was a staple standard as well as device for helping the efficient work management. Since it would be an indicator for informing that if we need knowledge management, management, or Educational Supervision to be successful as the goal, what kind of persons who had knowledge, skill, and characteristic do we need in order to practice their duty efficiently. Specifically, the learning process management of teachers and students for affecting the students' quality directly and indirectly (The Office of Educational Council, 2006). In the present, quality of Educational Management from PISA (Programme for International Student Assessment) was ranked in the 50<sup>th</sup> out of the member countries. According to the O-NET (Ordinary National Educational Test) in 2013, found that the Sixth Grade Students had Mean value in Lower level than 50%.

So, the Office of Basic Education Commission had to enhance the Educational Institute so that the teachers would prepare readiness for their students, enhance the students to be persistent in learning (student engagement) by organizing their instructional activity to be interesting and challenging for their students' ability (The Office of Basic Education Commission, 2014). Therefore, it was indispensable for the teachers to develop their competency to be able to provide Knowledge Management with higher quality. To accomplish the organizational goal, it was necessary to adjust the teacher development system to be able to change the teachers' competency as required by focusing on teachers' achievement competency as well as characteristic related to work success, and working to achieve goal based on Educational Standard (Ngoksin, 2007; Nuangchalerm, 2011). According to the above significance and necessity, the researcher developed the program for developing the achievement competency of teachers in basic education schools in order to be used in developing the teachers' achievement competency further.

## Conceptual framework

The conceptual framework of Factor in teachers' achievement competency, was determined by studying the document, textbook, and related research literature as follows: Spence and Spencer (1993); Parson (1996); California Standard for the teaching Professional, California (1997); The Department of Education and Training of Western Australia (2004); The Teachers Council of Thailand (2006); Office of the Teacher Civil Service Commission and Educational Staff (2006); Tanyalak (2007); Office of the Higher Education Commission (2008); Cover (2008); SEAMEO (2009); Cultura (2010); The Office of the Basic Education Commission (2010); The Office of The Civil Service Commission (2010); Hogan (2013); Marden (2013).

The conceptual framework of Technique for developing the teachers' achievement competency, the researcher studied the approach from work unit, organization, academic as follows: Seldin (1988); Spark and Loucks (1989); Robert (1990); Boonyachitardoon (1991); Drago-Severson (1994); The Office of Primary Education Commission (1998); Hughes (1999); Guskey (2000); Office of General Education (2000); Department of Curriculum and Instruction Development (2002); The Office of Basic Education Commission (2006); Kijyanyong and Na Takua-toong (2007).

Also, the conceptual framework for factor of the program, researcher studied rationale and approach from these academic as follows : Manee-ngam (2004); Thai Kamlan (2008); Chomhongpipat (2010); Sook-kan (2010); The conceptual framework of Program Evaluation, the researcher studied rationale and approach from these academic as follows: Songtieng (2005); Kamlan (2008); and Chomhingpipat (2010). The details are shown in Figure 1.

## METHODOLOGY

This research was Research and Development : R & D. The methodology could be classified into 4 Phases as follows:

**Phase 1:** The study of factor and indicator of teachers' achievement competency, included 2 steps as:

- 1 The study of theoretical approach and rationale related to factor and Indicator of teachers' achievement competency from document, textbook, and related research literature by synthesizing data from content analysis from the obtained data, and concluding into Factor and Indicator of teachers' achievement competency.
- 2 The implementation of in-depth interview from 12 experts by organizing the data from synthesized data I Phase 1.1 as semi-structured interview in order to implement the In-depth Interview experts' opinion on factor and indicator for developing the

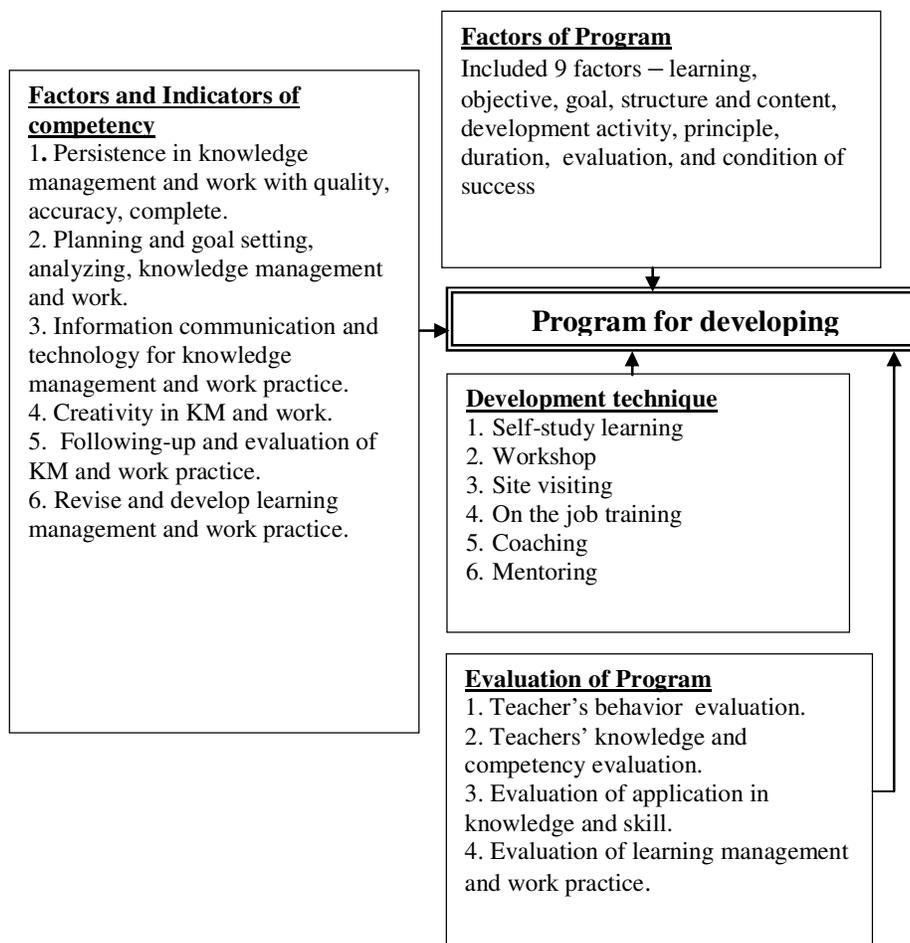


Figure 1. Conceptual framework.

achievement competency of teachers under jurisdiction of The Office of Basic Education Commission.

**Phase 2:** The study of problem, need, and technique for developing the teachers' achievement competency from Phase 1, the 65 items of the questionnaire was constructed for asking the problem, need, and technique for developing teachers' achievement competency. The questionnaire pilot studied with 160 samples who *were not* the target group including 80 school directors, and 80 heads of academic work.

**Phase 3:** The establishment of tentative program for developing the teachers' achievement competency, Handbook of Program Use, and Supplementary Document of Program was developed by presenting the data from Phase 1 and Phase 2 to 8 experts for evaluating its propriety and utilization of program, and revising based on their recommendations.

**Phase 4:** Program for developing achievement competency of teachers in basic education schools, was tried out with 21 Primary School Teachers by using the Development Program, Handbook for Program Use, and Supplementary Document of Program which were evaluated and improved, for teacher development. The

Program Usage was evaluated by the following measurement instruments as follows: The multiple choice test pilot studied with 30 teacher who *were not* the target group. The multiple choice test with 5 alternatives, 7 units, 10 items each unit, total of 70 items. The questionnaire of students' satisfaction on knowledge management and work practice of teachers was made. The behavioral observation in knowledge management and work practice of teachers was employed.

## FINDINGS

1. The factor and indicator for achievement competency of teachers in basic education schools were studied by studying the document, textbook, and related research literature from both of inside and outside the country, and interviewing the experts. Six major factors were synthesized: 1) the persistence in Knowledge Management

**Table 1.** Problem and need for developing the achievement competency.

Major factor	Problem			Need for development		
	$\bar{X}$	S.D.	Level of pro	$\bar{X}$	S.D.	Level of need
1. Persistence in knowledge management and work with quality, accuracy, complete.	3.94	0.37	High	4.42	0.47	High
2. Competency in planning, goal setting, analyzing, synthesizing their work task.	3.93	0.32	High	4.26	0.41	High
3. Competency in using Information Communication and Technology for learning and work.	3.97	0.35	High	4.33	0.43	High
4. Creativity in using innovation for increasing the efficiency in knowledge management and work practice.	4.02	0.31	High	4.31	0.43	High
5. Competency in following up and evaluation in knowledge management and work practice.	4.01	0.29	High	4.38	0.42	High
6. Competency in improving and developing the findings of knowledge management and work practice.	3.95	0.34	High	4.36	0.45	High
Total	3.97	0.33	High	4.34	0.44	High

and work practice with quality, complete, and perfect. 2) the competency in planning, goal setting, analyzing and synthesizing the knowledge management task. 3) the competency in using the Information communication and technology for knowledge management and work practice. 4) the creative thinking In using new innovation for improving the knowledge management. 5) the competency in following-up and evaluation of knowledge management and work practice. and 6) the competency in improving and developing the findings of knowledge management and work practice to be efficient continuously. Moreover, according to 12 experts' interview, found that they paid their attention to Major Factor 1, the persistence in knowledge management and work practice with quality, accuracy, complete, and perfect for the first priority. Since when the teachers were persistent in their work, they would have motivation in self-development in other factors by developing themselves to be able to work more efficiently.

2. Problem and need for developing the teachers' achievement competency, found that the teachers had problem, in overall, in "High" level. The need for developing their achievement competency was "High" level. The details are shown in Table 1.

According to Table 1, 6 aspects of major factors had problem in "High" level. The mean value was 3.97. The need for development was in "High" level in all of 6 aspects. The Mean value was 4.34. For technique for developing the teachers' achievement competency, it consisted of 6 techniques including: on the job training,

workshop, site visiting, self-study learning, coaching, and mentoring system. The number of hours in development based on development program of achievement competency of teachers in basic education schools, included total of 200 hours. Factor of program including: the rationale, objective, goal, duration, structure and content, development activity, instructional media, and evaluation and condition of success. The structure and content area included 7 learning units, total of 200 hours. Program evaluation by 8 experts, found that all of 3 aspects: Propriety, Feasibility, and Utility, were "Highest" level.

Program could develop teachers to be persistent in knowledge management and work practice to be accurate, complete, and perfect. They were able to make plan, set goal, analyze and synthesize the work task, and design the knowledge management. They could apply the Information Communication and Technology in knowledge management (Figures 2 and 3). They had creative thinking, used different innovations for promoting the students' learning. They could measure and evaluate the knowledge management, and use the findings from evaluation for improving the students' quality. The pretest score of teachers' achievement competency, in overall, was in "Low" level. For the posttest, found that in overall, the teachers' achievement competency was in "The Highest" level. The findings of knowledge and comprehension in teachers' achievement competency, found that the pretest Mean Score of teachers' knowledge and comprehension in achievement competency, was 3.27 points. For the posttest, the teachers' knowledge and

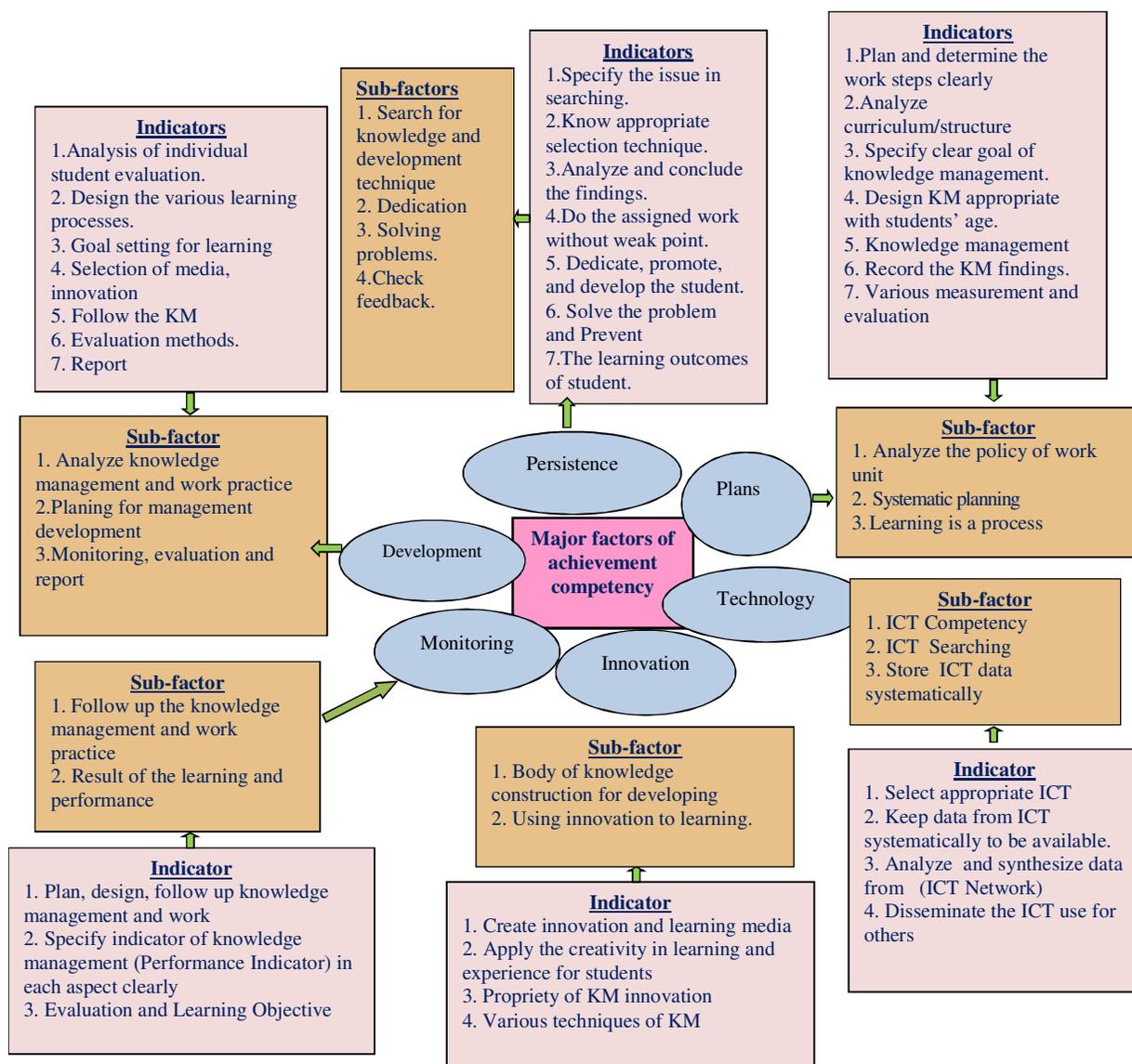


Figure 2. Factors and indicator of achievement competency.

comprehension were increased as 8.30 points out of 10 points. Teachers' knowledge management behavior and work practice in overall was "Highest" level. The students' satisfaction on learning management in overall was "Highest" level. The details can be shown in Table 2.

According to Table 2, it is concluded that the teachers had achievement competency, in overall the pretest was "Low" level. The posttest was "Highest" level. In sum, program for developing the achievement competency of teachers in basic education schools, appropriate to be

applied for teacher development.

## DISCUSSION AND CONCLUSION

The findings of problem, need, and technique for developing the achievement competency of teachers in basic education schools, found that the teachers had problem in achievement competency in "High" level. The need for achievement competency was in "High" level as

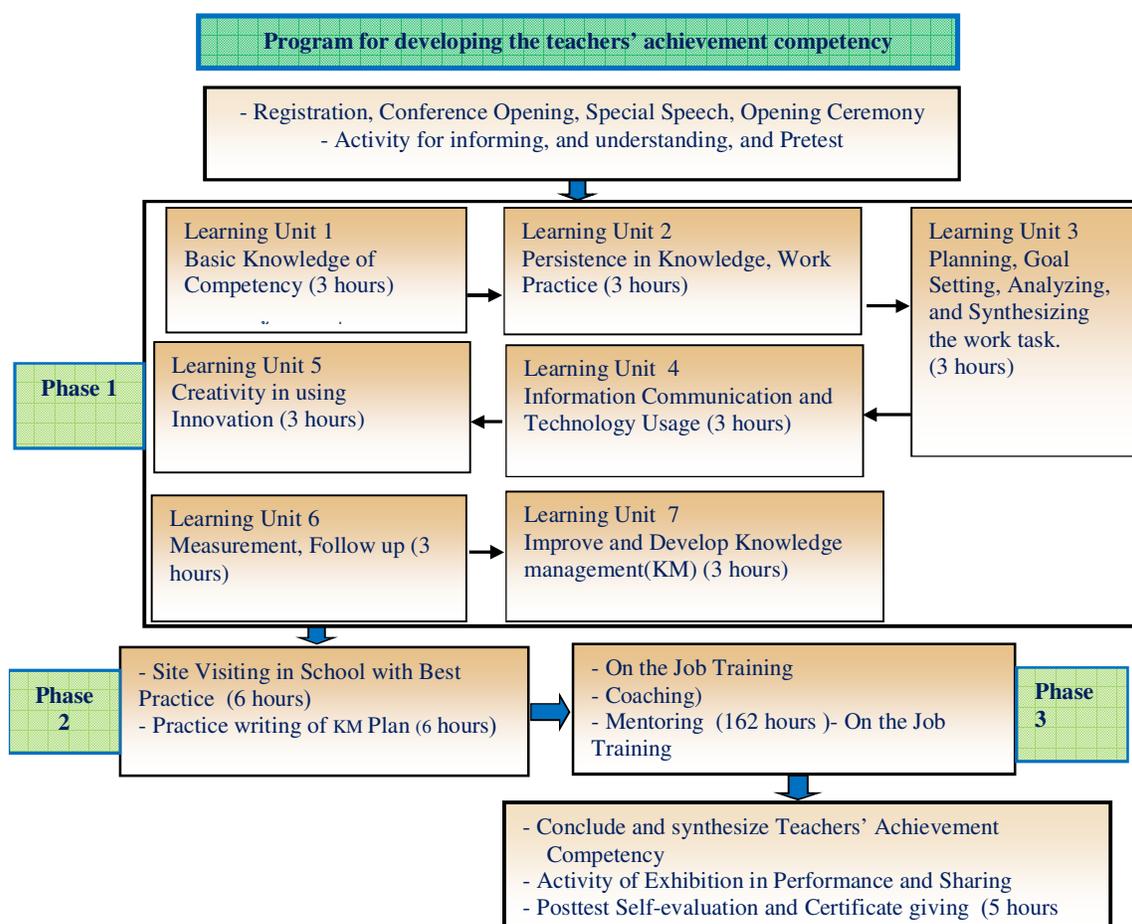


Figure 3. Program for developing the achievement competency.

Table 2. Pretest and posttest scores of competency of teachers.

Major factor	Before development			After development		
	$\bar{X}$	S.D.	Level of achievement	$\bar{X}$	S.D.	Level of achievement
1. Persistence in knowledge management and work with quality, accuracy, complete	2.49	0.13	Low	4.80	0.12	Highest
2. Competency in planning, goal setting, analyzing, synthesizing their work task	2.43	0.12	Low	4.87	0.11	Highest
3. Competency in using Information Communication and Technology for learning and work	2.38	0.06	Low	4.92	0.11	Highest
4. Creativity in using innovation for increasing the efficiency in knowledge management and work practice	2.36	0.19	Low	4.91	0.11	Highest
5. Competency in following up and evaluation in knowledge management and work practice	2.36	0.16	Low	4.93	0.09	Highest
6. Competency in improving and developing the findings of knowledge management and work practice	2.33	0.13	Low	4.87	0.12	Highest
Total	2.39	0.07	Low	4.88	0.05	Highest

well. It might be due to the government policy in education focusing on product system development as well as quality teacher development, and teachers' spirit emphasizing on the teachers to use the Information Communication and Technology as well as appropriate instrument in learning and teaching as the teacher aid or for learning by themselves. In addition, the competency evaluation system was adjusted for reflecting the instructional efficiency and students' quality development in order to improve the students' learning achievement quality. The Secretariat of the Education Council of Thailand (2013) conducted research found that the problems in teacher development were the teacher development program wasn't relevant to the teachers' need, the development technique was traditional one without new innovation, there was no connection between content of training and classroom instructional activity, the lack of continuous following-up system, the teachers lacked of competency and skill in using the Information Communication and Technology. The guidelines for teacher development were to provide the following-up and evaluation system of teacher development continuously. The technique of teacher development should focus on school-based training. The activities for development included the seminar training, site visiting, self-studying, and work practice continuously. After teacher development, the teachers had to use for real practice in classroom. The Mentoring System had to be provided. The measurement and evaluation had to be performed. Moreover, it was supported by research findings of Chansiri (2008) in "Core Competency Development of The Administrators in Supportive Line of Public Universities," by presenting various techniques for developing core competency development of the administrators in supportive line, for instance, training, workshop, site visiting, and so on.

The effect of development in program for developing the achievement competency of teachers in basic education schools, found that the teachers' achievement competency before participating in development, was in "low" level. After the development by program for developing the achievement competency of teachers, in overall, it was in "highest" level. Specifically, the factor in using the Information Communication and Technology could cause the teachers to be active in using the computer and internet as the media and innovation for instructional management. They organized the blogs and presentation which were body of knowledge as well as keyword for children to search and learn based on their potentiality. It might be because the evaluative findings assured the Program by experts in the propriety, feasibility, and utility of program in highest level in all of 3

aspects. Besides, the factor of developed program consisted of appropriate content, activity for development, learning media and source. As a result, the participant teachers obtained achievement competency in highest level. Since the program included the learning unit enhancing the teachers to be persistent in work practice especially in using the Information communication and technology for knowledge management which the teachers and students were interested in very much. It was supported by Chomhongpipat (2010). Research findings showed that the development program for teachers who used knowledge management based on guidelines for basic educational reform, consisted of 7 major factors including: vision, rationale, objective, content, structural process, and measurement and evaluation. The findings in using the program for developing the teachers' achievement competent, found that program was effective. Since the posttest score in percent of teachers obtaining the program development, was higher than the specified criterion.

In addition, it was supported by Poonput (2009) that the instructional media, instructional method in both of major media and minor one, played an important role in promoting and supporting every level of knowledge management/ It depended on context and readiness of teachers, students, and school. The major findings, it was found that the Information Communication and Technology could enhance the efficiency of students' Education very well. It was also supported by Goedde (2006) on research titled "Factor for Predicting the Teachers' Technology Competency," found that as the Educational Institute would step ahead by preparing the program. The needs for technology in the technological background were used as indicators by serving the relationship, accessing the computer at home, computer teaching in school, and appropriate number of hour/week of time being spent in school. The test of best factor for predicting students' technological competency for future teachers, leaders in university, Faculty of College, and the students' Faculty of College. Sometimes, the tendency in constructing the knowledge for technology attribute being integrated in the Training for teachers' technology competency, the challenge in preparing the future teachers, technology needed to be integrated little by little until the technological attribute could be specified.

Students' satisfaction on learning management after development according to the Program for developing the teacher's achievement competency, in overall, was "Highest" level. It might be because the teachers were interested in equipment of computer and internet before. Teachers should have argumentation in learning management that help students to reach the goals of

education, especially promote them to live with others in daily life and the world of change as well (Pharanat et al., 2015). When students perceived challenging learning situation and learning materials, students were energetic and willing to participate in activities. In addition, the teachers also provided opportunity for the students to participate in activity more.

### Conflict of Interests

The author(s) have not declared any conflict of interests.

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*Full Length Research Paper*

# Friendly and hostility perception of 8<sup>th</sup> grade students about countries

Beytullah KAYA

Ereğli Faculty of Education, Bülent Ecevit University, Turkey.

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The course contents taught in social sciences, revolution history and Kemalism at different stages of primary schools in Turkey form in learners political, social and economical behavioural pattern towards their neighbouring countries. The students try to form friendly or hostile behaviour against other countries. The study aims to determine what are the factors that influence the 8<sup>th</sup> grade students' either hostile or friendly perception of their neighbouring countries In Kadiköy District of İstanbul, semi-structured interviews were conducted with 60 8<sup>th</sup> grade students studying in a primary school. The students were asked to provide answers to a set of predetermined questions in the interview form. The findings were transferred into text document, comparatively analyzed and combined with the defined criteria within the framework of common discourse. In the light of the findings obtained, it was observed that friendly and hostile perceptions were already developed in the students' consciousness. It was concluded that in the formation of this consciousness, political events, national, cultural or religious issues are effective. In addition, the media and internet also play an influential role in the formation of students' friendly or hostile perception. While creating students' knowledge, it was determined that contemporary issues adversely affected them.

**Key words:** Teaching of history, friendship, hostility, primary education.

## INTRODUCTION

Turkey is located in a geographic area, where problems from neighboring countries are intense. These new and current issues plus the past problems from Turkey's neighbouring countries cause further problems in the interstate. That Turkey is close to countries located in the Middle East and the Balkans, and that there are a number of political, cultural and religious ties between these countries from the past make Turkey directly involved in the problems. This situation is a result of the advantages and disadvantages of being in a geography

area, which experiences rapid social and political changes rapid. Both problems of the past and now affect the perceptions of friendship and hostility of new generations of Turkey, positively or negatively.

In particular, international organizations such as the United Nations, UNESCO and EU have started working on revising the content of hostility in history textbooks in order to prevent the students from becoming hostile after their graduation (Tekeli, 1998). Although the desired results cannot be taken from the work initiated as a part

E-mail: [beytul76@gmail.com](mailto:beytul76@gmail.com). Tel: +90 05055249250.

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of peace education, the reduction of the concept containing hostilities in textbooks is provided. Peace education aims to develop respect towards others and resolute conflict (Harris, 2002). Terms unflattering other nations in the textbooks in Turkey have been removed. Within the framework of peace education, the content of developing students' listening skills, solving problems and finding solutions to conflict, is given in the course programs. Thus, in peace education, students aim to develop listening and problem solving skills, to produce solutions to conflicts.

## LITERATURE REVIEW

The number of studies on students' friendly and hostile perceptions is very few in Turkey, especially studies on the perceptions of secondary school students. The present studies were mostly carried out with older age group children or with university students. This study is important because it presents the kind of perception students nurse towards other countries as they grow up. The results of such studies reveal how students' views change based on what they study, either improvement or regression (Zevin and Corbin, 1998).

To correct the students' misperceptions, it is important to know their friendly and hostile sensations and to determine how these perceptions are developed. Within this scope, the study will contribute to peace education approach in correcting students' misperceptions. The results of the study will be able to contribute to the education programs that will be developed in countries.

Though peace education studies are being carried out in Turkey and the contents of hostility have been removed from their coursebooks, the researchers prove that the students' hostile perceptions towards other countries increase continually (Yılmaz and Kaya, 2010). The study presents that the students' perceptions are not formed only by coursebooks or teachers. A lot of political and social problems happening between governments affect these perceptions (Demir 2011; Ersoy, 2013; Tuncel, 2002).

National and international studies on peace education have focused on the analysis of conflict intensively. Demirtas (1991), Ulusavaş (2000), Tapan (2006) and Iron (2011) have determined in their work that peace education allows students to develop conflict resolution skills. Harris (1996) has reviewed the peace education projects in state schools in the United States. The program is thought to develop problem-solving skills to conflicts. Fuerverg (1997), Kupermintz and Salaman (2005) have reached the conclusion that the implementation of peace education program between Israel and the Palestinians reduces the

feelings of hostility in students. In a study done by Shlengluo (2003a), it is stated that the university students in China have negative perceptions towards Russia. In a study which was done in the USA with the participation of adults, the opinions about England, Russia, Japan, Mexico, India and Venezuela were investigated. It was determined that although the participants' opinions towards developed countries are positive, their opinions towards underdeveloped countries are negative. Besides, it was also found out that the participants' views are affected by mass communication (Perry and Mc Nelly, 1988). Scott (1999) revealed that high school students' view towards the third world in the USA is that America is a superior country. Caulfield (2000) revealed that we need a peaceful society to create a society living in peace and for it we need to train for peaceful purposes in his research. Johnson and Johnson (2001) examined students' conflict-solving skills and at the end of study they found that students have developed their conflict resolution skills. Ediger (2003) worked on to explain the concepts of war and peace. He examined the issues of war and education and stressed the necessity of peace education in his work. Sarrıca and Contarello (2004) examined the perception of people with pro-peace and anti-war peace about peace and conflict. Perceptions of both groups determined that each of them is on equal level. Genç (2006) has worked on a peace education project between the Turkish and Greek students. He focused on improving mutual trust among students as a result of work. Gazioğlu (2008) has also studied conflict-resolution-skills of students in his research. He found that peace education develops conflict resolution skills of the students. Deveci et al. (2008) investigated the perceptions of teachers about peace education. Teacher candidates stated that peace education is necessary for classes in elementary school. Askerov (2010) focused on how peace education affects the resolution of conflicts in the study. It has been revealed that peace education work contributes to the resolution of conflicts. Karaman-Kepenekçi (2010) examined the views of students on national and international peace. The most significant obstacle to peace in the world as perceived among students is that states wish to use the world's resources for their own interests. Yılmaz and Yiğit (2010) examined perceptions of social studies candidate teachers about the neighboring countries of Europe, the Middle East and Turkey. At the end of the work, they determined that their perceptions are based on knowledge of political history and students' perception coming at the axis between friends and enemies. Ersoy (2013) investigated how Turkish students and teachers perceive international war and conflict events, and how teachers processed social studies courses and their influence on students. He discovered

that the teachers did not have sufficient knowledge in the teaching of international debate. Among the factors that influence students' perceptions such as textbooks and teachers, the media hold the most important place in a small number of research (Corbin and Zeven, 1997; Aktas, 2013).

Studies focus intensively on the subject of peace education, the perception of students about other countries and how the factors that affect these perceptions should be increased. It is also clear from the research that peace education affects the perception of other countries and conflict resolution skills of students. In this context, the revealing of the factors affecting the students' perceptions and how their perceptions about other countries are formed is of scientific importance. This work is important in revealing how to create Turkish students' perceptions of friendship and enmity.

### The aim of the research

The purpose of this study is to determine how friendly and enmity perception of 8<sup>th</sup> grade students towards other countries happens. For this purpose, it aims to answer the following questions:

1. Which countries do the 8<sup>th</sup> grade students perceive as enemies?
2. Why do the 8<sup>th</sup> grade students perceive some countries as enemies?
3. Which countries do the 8<sup>th</sup> grade students perceive as friends?
4. Why do 8<sup>th</sup> grade students perceive some countries as friends?
5. What are the factors that affect the formation of 8<sup>th</sup> grade students' friendly and enmity perception?

### METHOD

In this study, a qualitative research method is used to determine the friendly and enmity perceptions of the 8<sup>th</sup> grade students. Detailed information was collected to determine the perception of the students. Thus, the scan pattern of the qualitative research method is preferred because it is consistent with the nature of the research. It investigates the data thoroughly to determine the current situation with the screening model. Scanning method determines existing perception and status, starting from individual perception and approach (Karasar, 2012: 77; Patton, 2002; Punch, 2009).

Study sample constitutes 60 elementary school students from two different classes (24 girls and 36 boys). They were chosen randomly at a secondary school in the Province of Istanbul Kadikoy District. Since the students were chosen randomly, their socio-economic situations were not involved in the study, as well as the differences between them. The school students who were investigated are from different regions of Turkey. That is, the students in the sample group are from different regions of the country and have different socio-

cultural backgrounds. Besides, the scanning method among the scanning qualitative research methods was determined since it is suitable for the aim of this study. That is to say, the study does not aim to compare any situation but to reveal the existing situation. Data in the research were collected through semi-structured interview form prepared by the researcher. Thus, during the interview in order to determine students' perceptions, detailed and necessary questions were directed to the students.

Interview was made entirely with students in the sample. Voice recorder was used during the call. 7 questions were prepared by examining the literature. Since reliability and validity cannot be stated with quantitative data in a qualitative research, an expertise is needed in order to increase their validity and reliability (Yıldırım et al., 2002; Silverman, 1993; Mason, 1996). In this study, by taking teachers' opinions, reliability and validity were ensured. Additionally, to increase the reliability and validity, a pilot study was applied to the students. Experts and academics were consulted to address two questions and they were checked by two branches of teachers. After taking the branch teachers' opinions, expert academics' opinions were sought. The questions were reorganized according to their opinions. The number of questions was reduced to five after experts' opinion, and the interview form was written. The shape of the front end of the interview form is given, making calls with three students.

Pilot study of the research was conducted in the second week of November 2012. After the necessary arrangements were made, semi-structured interviews were conducted by the researcher, and meetings were held with the 60 students during December and January. Interviews were recorded with voice recorder and then they were converted into text.

Data were tabulated using analysis method to provide understanding of the obtained data. In addition, in the findings section of the student discourse, discourse analysis methods are provided in the form of direct quotations.

### FINDINGS

19 students indicated Israel as the number one enemies of Turkey; 9 students, Britain; 7 students, France; 6 students, Armenia; 6 students, America; 5 students, Russia; 3 students, Greece 3; 3 students, Germany and 2 students, Libya (Table 1).

The students considered Israel to be Turkey's enemy because of the following reasons: 4 of the students said 'Turkey's aid to Palestine resulted in hostile grounds between Israel and Turkey'; 4 students said, 'we have different religious beliefs'; 2 students said 'the events in Davos between Israel's president and Turkey's prime minister'; 4 students said 'the attack on the Mavi Marmara ship by Israel'; 5 students said 'Israel demanding land from Turkey' (Table 2).

The students were hostile to United States because: 1, America's two-faced policy of monitoring Turkey, and supporting a terrorist incident while appearing to be friendly; 2, they have different religious beliefs.

Concerning France, the students stated that France does not respect the independence of Turkey, and fought with Turkey in the past to seize its earth.

The students considered Russia as an enemy because of Russia's wish to go to the hot sea, the war between

**Table 1.** Students' views about hostility toward countries.

Name of the country	f	%	n
Israel	19	31.67	60
England	9	15.00	
France	7	11.67	
Armenia	6	10.00	
America	6	10.00	
Russia	5	8.33	
Greece	3	5.00	
Germany	3	5.00	
Libya	2	3.33	

**Table 2.** The views of the students why they consider some countries as enemies.

Name of the country	Reason for enmity	f	%
Israel	Turkey helps Palestine	4	6.67
	Different religious beliefs	4	6.67
	The events with Turkey's prime minister in Davos	2	3.33
	They attack Mavi Marmara	4	6.67
	Demanding land in Turkey	5	8.33
America	Two-faced policy support of terrorist incident while appearing to be friendly	4	6.67
	Different religious beliefs	2	3.33
France	Not respect the independence of Turkey	3	5.00
	Fought with Turkey in the past to seize its earth	4	6.67
Russia	Wishes to go to the hot sea and panislavizm policy	4	1.16
	Fought Turkey in the past	1	1.16
England	Destroyed the Muslim and fought with Turkey in the past	6	10.00
Greece	Wants to take Turkey's land and fought with Turkey in the past	5	5.00
Armenia	Wants to take Turkey's land and the events during World War I	5	8.33
Libya	Things Gaddafi did against the Turkish people	1	1.16
	He killed the people	1	1.16
Germany	Negative attitudes towards Turkish	3	5.00

Russia, Russia's panislavizm policy of monitoring the Ottoman Empire in the past. Similarly, they see Britain as an enemy country because it fought with Turkey in the past and it attempted to destroy the Muslims.

They see Greece as enemy because it wants to take their land. During World War I Armenia wanted to take the lands of Turkey. This made the students to tag it as an enemy country.

The students consider Libya, a Muslim country as an enemy country because Gaddafi (former president of Libya) did evil thing to the Turkish people in Libya, and also killed them. Similarly, they are hostile towards Germany because its people exhibited negative attitudes towards the Turkish people living in Germany.

The students consider the following countries as friends

thus: 12 students consider Azerbaijan as friends, 10 students, Germany; 10 students, Japan; 8 students, Palestine; 4 students, United States; 8 students, Turkish Republic of Northern Cyprus (TRNC); 2 students, Greece; 4 students, Turkmenistan and 2 students, Kazakhstan (Table 3).

The reasons the students consider the following countries as friends are thus: Azerbaijan is both Turkish and Muslim and it supports Turkey in Eurovision Competition. For Germany, many Turkish people live in Germany and it is beneficial to Turkey. Concerning Japan, it helps Turkey during earthquake and causes no damage to it. Palestine is also seen as friends. Turkish Republic of Northern Cyprus (TRNC) is seen as friends because it is Turkish state and has landship. For USA, it is in contact

**Table 3.** Friendship perceptions of country by the students.

Name of the country	f	%	n
Azerbaijan	12	20.00	60
Germany	10	16.67	
Japan	10	16.67	
Palestine	8	13.33	
America	4	6.67	
TRNC	8	13.33	
Greece	2	3.33	
Türkmenistan	4	6.67	
Kazakhstan	2	3.33	

**Table 4.** Students' views on the reasons why they countries as friends.

Name of the country	Reason for friendship	f	%
Azerbaijan	is Turkish	7	11.66
	is Muslim	4	6.67
	supports Turkey in Eurovision Competition	1	1.16
Germany	Many Turkish people live in Germany	8	13.33
	it has beneficial for Turkey	2	3.33
Japan	helps Turkey during earthquake	7	11.66
	it does not damage Turkey.	3	5.00
Palestine	is Muslim	5	8.33
	loves Turkey	3	5.00
TRNC	is Turkish	3	5.00
	is seen as landship	5	8.33
America	in contact with Turkey	2	3.33
	helps it about terrorism	2	3.33
Türkmenistan	is Turkish	4	6.67
Greece	sometimes helps Turkey	2	3.33
Kazakhstan	is Turkish	2	3.33

with Turkey and helps to tackle terrorism. Turkmenistan is Turkish state. Greece sometimes helps Turkey and Kazakhstan is Turkish state (Table 4).

The students consider the followings as factors affecting students' hostility and friendly perceptions thus: 22 students stated television; 18 students, history books; 8 students, internet; 8 students, newspapers and 4 students, teachers (Table 5).

## DISCUSSION AND CONCLUSION

As a result of this research, it was determined that 8th grade students have friendly and enmity perceptions. Similar results have been demonstrated by studies conducted among different age groups (Yılmaz and Yiğit, 2010). They state that students define enemy countries as

**Table 5.** The views of student's concerning the sources of perceptions of friendship and hostility.

Source	f	%	n
Television	22	36,67	60
History Books	18	30,00	
Internet	8	13,33	
Newspaper	8	13,33	
Teachers	4	6,67	

those having problems with Turkey in recent history. The students have negative attitude towards the countries that have international problems with Turkey. The problems are set off between states rather than geographical space to prevent creating students' hostile perception. In this

context, though the country shares no border with Israel, the students see Israel as an enemy of Turkey. When the reasons for this perception are examined, students express political events, religious belief, and historical information that are not included in the official program. This is because information of Israel belonging to a different religion and requesting for land in Turkey is not in history books. On the other hand, there is a negative perception towards countries such as the UK, United States, because they are effective in international politics. International problems not solved and complex methods pursued by the largest state in this issue lead to the formation of a hostile perception by students. The United States has been accused of hypocritical policy by Turkish people followed by the students. That some countries demanded their territory from the war and were against Turkey in the past causes hostility. The negative relationships in political, social or military issues that occurred in the past among states, the religious thoughts of the students and the information on history lessons taught in schools play an important role in the development of students' hostile perception. This result is supported by similar studies (Neuman, 2001; Hunsberger and Jackson, 2005; Rock, 2004).

How students perceive Turkey's friendly countries is understood from the study results. In doing so, they think about the historical past, common traditions, common understanding of the people and social benefits. A significant portion of the country indicated as friends is composed of Turkish and Muslim countries. This result is supported by similar research (Tuncel, 2002). In this context, countries inhabited densely by Turkish people are friendly countries. On the other hand, countries establishing good relations with Turkey, and situated next to it in its difficult period are friendly. Among these countries, Japan is in a different place. The visual aid given by Japan to Turkey makes the students see it as their friend. Recently, they perceived Greece as friendly due to the social events that they have had. Countries cooperating with Turkey and Muslim countries on international issues are adopted as friendly countries. It is seen that the discourse of religious ideas from the students takes an important place in the development of friendship perception.

Students prove that the knowledge obtained from television is the most important factor influencing the development of friendly and enmity perception. When students viewed their friendly and enmity perception of the country, this discourse is also seen. So in this case, students are clearer compared to the perception that they put out resources and affect their perception. Debate on Turkey's prime minister and president of Israel in Davos or in Azerbaijan's Eurovision Song Contest entrant to support the Turkish people are examples of this. It is understood

that media communication tools and equipment about the students contribute to the perception of friendship and enmity, negatively affecting the students. It is also understood as a starting point of the current problems existing in the formation of perceptions of hostility against Libya. In this context, students' academic knowledge in the formation of perceptions, rather than between states is clear from the findings of the study as a starting point of the current problems occurring. On the other hand, the information contained in textbooks is seen as the two factors influencing the perception of friendship and enmity. Students located within the discourse of reason, such as to 'demand for our land' and 'war against our country' are examples of this. The formation of the perception of the students is included in the Internet and newspapers. The information contained in these channels influences students positively or negatively. The students identified teachers as the least factor affecting their perception (Berry, 2003; Harrison, 1995; Figen, 2013).

In consideration of the study results, students develop sensibility towards the events happening around their country. Also, historical problems affecting the relationships between countries, the news appearing on media, existing politics have important role in students developing sensibility. In the studies both nationally and internationally, it is concluded that students develop friendly or hostile perceptions by being influenced by the media, political developments, and politicians (Yılmaz and Kaya, 2010; Zevin and Corbin, 1998, Ersoy, 2013). In the study that was done, the fact that teachers and course books are shown as the less effective factors influencing students' friendly or hostility perception results from the course book contents being corrected with peace education.

## RECOMMENDATIONS

1. There is not enough research in Turkey about this topic. Therefore, the examination of the different methods and construction of new research by providing participants of in-depth and different sizes are recommended.
2. For the students to acquire more in-depth information about different countries and their cultures, political, economic, social studies contents and materials related to cultural characteristics are suggested for use in the coursebooks.
3. For the occurrence of friendly or enmity perceptions between states, basic factors and other societal difference should be examined and included in the social studies book to judge the content (Braym, 1990; Scott, 1999).
4. More space should be given to the coursebooks on

current issues, thereby helping students to build on the solid foundation of historical view.

### Conflict of Interests

The author has not declared any conflict of interests.

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