

The Attitudes of Teachers towards 2005 Academic Year Primary Education Program

*Süleyman DOĞAN**

Abstract

This study is considered to be significant in objectively analyzing the negative-positive effects of the program during the process of learning, teacher's acquaintance to the new program in a closer way and acquiring a positive perspective of the program. This study has been conducted in order to discover the effects of 2005-2006 academic year primary education program on cognitive-emotional-psychomotor acquisitions, and expectations of the students in learning process. The sampling of the research consisted of 836 teachers (Women: 438, Men: 397) of state and private primary education institutions selected by random sampling method in Istanbul in 2008-2009 academic year. Research data were collected by "the Scale of Teachers' Attitude towards New Primary Education Program" consisted of 27 questions developed by the researcher. This study aims objectively at designating the negative-positive effects of the program during the process of learning. Moreover, perceptions and attitudes of primary education teachers towards the 2005 academic year primary education program are studied ; the relationship between the previous and the new program is tried to be designated; and the differences and limitations of the new program are also discovered. Hence, the study aims at contributing to the concerned officials and researchers. The attitudes of the teachers towards the new educational program do not show significant differences in respect to gender, experiences, educational levels and state of graduation. However, there is a significant difference of their perspectives about new educational program in respect to their marital status and the institutions they work at. The results of the study were compared and discussed with several former program evaluation examples.

Key Words

Teacher, Teaching, Program, Primary Education Program, Teacher Attitudes.

* Correspondence: Assist. Prof. Yıldız Technical University Faculty of Sciences and Literature, Department of Humanities and Social Sciences, 34220 Esenler-İstanbul/Turkey.
E-mail: sudogan@yildiz.edu.tr

In the 21st century, which is also known as the Age of Informatics, it has become an indispensable for Turkey to prepare a more contemporary curriculum to reach and even exceed the standards of developed countries. To keep this in mind, the Ministry of Education altered primary education curriculum dramatically in 2005.

The word curriculum comes from the English literature in the 17th century, and has become one of the basic notions of education in the last century. The exact equivalence of this term has not been found in many European languages (Eden & Lewy, 1991). Ertürk (1978) used the word 'yetiçek', however this word was not widely accepted. Today, most of the sources use educational program for 'curriculum' (cited in Erden, 1998).

While the innovations and different perspectives that constructivism brought at the understanding of education affect the educationist deeply, according to Romberg and Shafer (2003) and Ersoy (2006), it also paved the way for them to update their programs in science and social science fields. The educational institutions in the new world system must organize their programs in order to meet the needs of children and the youth as to introduce them to the real life, and transfer to business life successfully and create a productive educational atmosphere (Yaylacı, 2007, p. 120).

Doğan (1997) defined an educational program as "to let a teacher know what to, why to and how to teach; let the administrator know what facilities are needed; let the superintendent know what to and how to assess something; let students know what to learn and what are expected from them; let employer know which ready product to buy".

Primary education teaching programs are prepared in a student-oriented approach. When it is analyzed on a paper, it has reforming quality to remove many problems we meet in teaching Mathematics. However, it must not be forgotten that the fate of every reform is in the hands of the teachers that would apply it (Uçar, 1999).

It is hard for a student to pay continuous attention in instructing method. In teacher-oriented traditional methods, the efforts to teach was given more priority and individual differences did not get due attention. The traditional instructing method did not use to draw students' attention to the lecture, only placed them to the place of a receiver; and the opinions, exploratory power and intuitive of the students did not get enough place in it (Demirel, 2006).

This instructing process, in which the continuity of attention was not maintained, was not productive enough. In the contemporary instructional methods, which were developed to remove the negative results of the traditional methods, students participate in the educational process actively; and teachers have responsibility to help students to access the source of knowledge, guide and encourage them continuously. Constructivism is not a model about teaching; it is a model about knowledge and learning; and this model is based on forming knowledge from the basis. Learning especially in traditional classroom environment, is based on the repetition and memorization of knowledge whereas in constructivism the transfer and reshaping knowledge is possible (Yapıcı, 2007).

Education researchers have conducted many research on the constructivism in the fields of teaching and learning since the 17th century (Bodner, 1986). While Cheung and Taylor (1991) stated that scientific knowledge is structured in the mind individually and socially, Phillips (1995) said that constructivism contributes to active learning, social learning and creative learning. In this point, the constructivist educationists are said to facilitate the learners to internalize or transfer new knowledge (Holloway, 1999).

The learner in constructivist approach has an active role in teaching-learning process. Hence constructivist classroom environment is not a place where knowledge is transferred rather it is a place where students are provided a chance to participate actively and investigation and questionings are carried out and problems are solved. Classroom activities are designed to provide students to have rich learning experiences (Demirel, 2006, p. 236).

Educational programs were seen to be restructured various times in the Republican Era Turkish Education System. Following the proclamation of the Republic, there were reconstructions in the instructional programs of the primary education in 1924, 1926, 1936, 1948, 1962 and 1968. Compulsory education had been designed to be 5 years between the dates 1924 to 1997. The mandatory education program was extended to be 8 years uniting 5 years of primary education (class 1-5) and 3 years secondary education (class 6-8). However, these programs have not been reconstructed yet. Rather than fragmental primary and secondary education program perception, the program has been made appropriate for eight years of incessant programs (Milli Eğitim Bakanlığı [MEB], 2005).

A significant difference of the new program comparing to the traditional one is to aim at living the process of acquiring rules and notions in Mathematics and learning accordingly rather than their knowledge of them. In other words; not the results but the way they are acquired is paid attention in Mathematical knowledge. In carrying out lessons, activities that centre students are paid attention to. Hence, the students are aimed at being individuals making mathematics. It is understood that Piaget's Constructivism forms the base of the program. When we compare the number of attitudes in previous program and number of acquisitions in the new program, there is a quarter of decrease. This is due to the plainer form of the program where there are no unnecessary repetitions (Altun, 2007, p. 53).

There are some novelties in the new program that caught our attention. Whereas there was a target for each unit and effect of it to the teaching of all behaviors, it is enriched in the new program. Activities on almost all the acquisitions were given with illustrative examples, as if the program is dipped into activity sauce (Altun, 2007). Constructivism is not a single learning model, rather it is a participative and interactive 'eclectic' model that takes the individual to the centre and paves the way for the production of knowledge. Therefore, it is a flexible model. For example, it uses not only inductive method, but also causes individuals to decide where inductive and where deductive methods are to be used and leaves that to teacher (Yapıcı, 2007, p. 8).

In the period from 1923 to 1999, many statesmen and educationalists in our country emphasized the need for a curriculum suitable for the structure of our community (Apay, 1996; Atlıoğlu, 1997; Geban, Önal, & Kayatürk, 1996; Öncül, 1990; Özdemir, 1995; Özat, 1997; Taşpolatoğlu, 1993; Töremen, 1999; Turgut, 1992). An applied research in 2005 curriculum attracts our attention (Akbaş, 2006; Bulut, 2006; Gömleksiz, 2005; Korkmaz, 2006; Yıldırım, 2006).

Education program is leading basic elements of an educational system on account of the fact that it is designed in a way to respond who are to participate teaching process, what are to be taught, how to be learnt, when to be learnt. Hence, reform works in education focus on educational programs. In addition to explaining the fields of study and disciplines in applying the program, it also explains the tasks and responsibilities of the students as well as the teachers taking part in the educational program. Teachers have a significant role in effectuating anti-

pated instructional applications in an educational program. Therefore, the roles of teachers and students are also defined in reconstructions of instructional programs.

Perceptions and attitudes of primary education teachers towards the primary education program which was put into effect in 2005 and comparison of previous-current instructional program were studied in this study.

Aim of the Research

This has been conducted to explore the effect of primary education program put into effect in 2005-2006 academic year to the process of learning, to the cognitive-emotional-physical acquisition of the students, and teachers' expectation of students. This study was conducted to discover the perceptions of teachers on primary education program put into effect in 2005-2006 academic year and designate their attitudes on former-present program comparisons. Hence, the question whether there is a significant difference in teachers' point of view on 2005 education program in terms of their branch, experience, the institution they work at, educational level, the faculty of graduation and their genders is tried to be responded.

Method

Universe and Sampling

The population of the research is consisted of teachers employed in state and private primary schools in Istanbul. 836 teachers selected with random selection method form the sampling of the study. Demographic characteristics of the participators are illustrated in Table 1. As demonstrated in Table 1, 52,4 % of the participators is women and 47,5 % is men. Among the participators whereas 28,5 % have 5 years of experience, 8,9 % have that of 25 years and above. 8,4 % of the group did not indicate the years of experience.

Data Collection Instrument

While developing 2005 Academic year Primary Education Program Attitude Scale, firstly a pool of Articles was formed for the target group

to whom the scale would be applied, i.e. teachers in primary schools were discussed with and some observations were carried out. There has been 27 Articles in the Pool of Articles. In order to measure participation level to the Articles, fivefold Likert type scoring was used. These scorings were "Absolutely Agree (5), Agree (4), Undecided (3), Don't Agree (2), and Absolutely Not Agree (1). Firstly, in the works of validity, some specialists were designated to consult for a scope and appearance validity. The Scale was presented to expert academicians in educational program, psychological counseling and guidance, measurement and assessment for a scope and appearance validity, their ideas were kept in considerations. After the discussions and criticisms necessary alterations and removals were made. A scale of 27 Articles was formed and the works of reliability and validity were conducted in accordance with this scale. Pre application was carried out on 200 teachers; Article 12 was removed.

A question form in order to determine gender, years of experience, institution employed, level of education, department of graduation, marital status, subject, and a scale consisted of 27 questions to detect teachers' view point on new primary education program were used in the research.

The scales with 0.60 reliability co efficiency and above are considered as quite reliable, and 0.80 reliability co efficiency is considered to be highly reliable (Özdamar, 1999). As a result of article analysis, articles 18 and 23, which decrease the reliability, were removed from the test and the reliability co efficiency is calculated as (Cronbach Alpha) $\alpha:0,874$. In order to test structure validity of the new scale, explanatory factor analysis was conducted through Principal Component Analysis (PCA) method. For the purpose of testing the size and variance structure to factor analysis process, Kaiser-Meyer-Olkin(KMO) and Barlett Sphericity tests were applied. The fact that data were calculated as KMO= 0,814, Barlett Shpericity 0,000 significance level 4679,073 confirmed the appropriation of the test to factor analysis.

In order to carry out structural validity and reliability works, the scale was applied to study group. Explanatory Factor analysis was made to the data obtained from the scale for structural validity. In determining the Articles in the scale for Explanatory Factor Analysis followings were kept in mind: Essential values of Articles 1, load value of articles was minimum .30, having articles available only in a single factor, and

having minimum difference of 10 between two factors (Büyüköztürk, 2007). In addition, 25 degree Varimax pivot rotation was made. Factor structures designated by Varimaks rotation method were obtained. As a result of the test, 5 more items (11, 12, 14, 15, 27), which were thought to be inconsistent with the scale sizes or loaded with more than one item, were removed from the scale. After the subject was scrutinized by the specialist, the scale was detected to be one-dimensional. This factor is observed to have explained the teachers' view point on the new primary education program at the rate of % 32,338. By the recommendation of the specialists, the scale was named as "Perceptions of Teachers on New Education Program".

Table 1.*Demographic Characteristics of the Participants*

GENDER	f	%
WOMEN	438	52,4
MEN	397	47,5
Total	835	99,9
Loss	1	,1
YEAR OF EXPERIENCE		
0-5 YEAR	230	27,5
5-15 YEAR	322	38,5
15-25 YEAR	140	16,7
25+ YEAR	74	8,9
Total	766	91,6
Loss	70	8,4
INSTITUTION EMPLOYED		
PRIMARY EDUCATION	708	84,7
PRIVATE SCHOOL	117	14,0
Total	825	98,7
Loss	11	1,3
LEVEL OF EDUCATION		
ASSOCIATE DEGREE	77	9,2
BACHELOR'S DEGREE	694	83,0
MASTER and DOCTORAL STUDY	60	7,2
Total	831	99,4
Loss	5	,6

GRADUATION STATUS		
FACULTY OF EDUCATION	542	64,8
FACULTY OF SCIENCE AND LITERATURE	169	20,2
OTHER	123	14,7
Total	834	99,8
Loss	2	,2
MARITAL STATUS		
MARRIED	574	68,7
SINGLE and OTHER	258	30,9
Total	832	99,5
Loss	4	,5

Table 2.

Teachers' Attitude Factors on New Primary Education Program, Explained Variation, Eigen value, and Alpha Co efficiency

	TATEP /Factor
ARTICLE 1	,602
ARTICLE 2	,621
ARTICLE 3	,368
ARTICLE 4	,481
ARTICLE 5	,405
ARTICLE 6	,642
ARTICLE 7	,701
ARTICLE 8	,712
ARTICLE 9	,634
ARTICLE 10	,300
ARTICLE 13	,659
ARTICLE 16	,514
ARTICLE 17	,528
ARTICLE 19	,659
ARTICLE 20	,422
ARTICLE 21	,643
ARTICLE 22	,677
ARTICLE 24	,386
ARTICLE 25	,545

ARTICLE 26	,616
Explained Variation	32,338
Essential Value	6,468
Internal Consistency Co efficiency	0,874

Data Analysis

Data were analyzed in SPSS program in accordance with the aim of the research. Reliability and validity are the most important two criterion to convince (or increase persuasion) the results of a research. Hence, “to report the data collected in details and explaining how the researcher reached the results are among the most crucial criterion of validity of a qualitative research” (Yıldırım & Şimşek, 2005, p. 257).

An opinion of an expert was counseled in order to designate whether the scale of 27 questions, which was developed in the research, represented the conducts and perceptions mentioned above. Necessary changes were made in this respect. Articles 18 and 23, which reduced the reliability of the scale, were removed from the test. The reliability co efficiency of the scale was calculated as (Cronbach Alpha) α :0,874. To test structural validity of the new scale explanatory factor analysis Principal Component Analysis (PCA) was conducted. After all this process, number of teachers representing each category and their percentage were calculated. Then, ANOVA and independent groups t-test were applied to see whether there was a significant difference of teachers’ perception about 2005 academic year primary education program in respect to their branches, experiences, institutions they work at, levels of education, faculties of graduation and genders; and data were analyzed.

Findings

It is seen that teachers have average perspective on new education program. Descriptive statistics is presented in

Table 3.

Descriptive Statistics related to Teachers’ Perspective on Educational Technologies

SCALE	N	Loss	Minimum	Maximum	Average	SD
TPNEP	736	100	29,00	73,00	51,69	7,83

Table 4.
Descriptive Statistics of Teachers' Perspective on New Education Program in Respect to Gender and Independent Groups T-test Results

Score	Gender	N	X	SS	t test		
					t	Df	
TPNEP	WOMEN	375	51,62	7,88	-,199	733	0,843
	MEN	360	51,74	7,78			

p: 0,843

Table 5.
Descriptive Statistics of Teachers' Perspective on the New Education System in Respect to their Experiences and ANOVA Results

N, SS VE X Values				Anova Result		
Score	DENEYİM	N	Average	SS	F3;735	Sig.
	0-5 Year	230	65,62	10,52	1,426	,649
TPNEP	5-15 Year	309	66,11	11,25		
	15-25 Year	127	68,10	12,00		
	25 Year and above	73	66,77	12,00		

Table 6.
Descriptive Statistics of Teachers' Perspective on New Education Program in Respect to the Institution they are Employed at and Independent Groups T-test Results

Score	Institution	N	X	SS	t test		
					t	Df	
	Public Primary education	628	65,78	11,06	-,582	252	0,000 ^{1*}
	Private Primary Education	158	69,17	10,49			

Table 7.

Descriptive Statistics of Teachers' Perspectives on New Education Program in Respect to their Level of Education and ANOVA Results

Score	N, SS VE X Values			Anova Result		
	LEVEL OF EDUCATION	N	Average	SS	F2;789	Sig.
TPNEP	ASSOCIATE DEGREE	77	50,64	8,11	,275	,760
	UNDERGRADUATE	694	51,04	7,94		
	MASTER and DOCTORATE	60	51,65	8,00		

Table 8.

Descriptive Statistics of Teachers' Perspectives on New Education Program in Respect to Faculty of Graduation and ANOVA results

Score	N, SS VE X Values			Anova Result		
	FACULTY OF GRADUATION	N	Average	SS	F2;789	Sig.
TPNEP	EDUCATION	502	66,77	10,73	,748	,474
	ARTS and SCIENCES	176	65,59	10,36		
	OTHERS	114	66,36	13,33		

Table 9.

Descriptive Statistics of Teachers' Perspective on New Education Program in Respect to Marital Status and Independent Groups T-test Results

Score	MARITAL STATUS	N	X	SS	t test		
					t	Df	
TPNEP	MARRIED	533	67,27	11,37	3,412	529	0,0012*
	SINGLE	251	64,46	10,43			

Table 10.

Descriptive Statistics of Teachers' Perceptions of New Education Program in Respect to Their Major and ANOVA Results

Field of Teaching	N, SS VE X Values			Anova Result		
	N	Average	SS	F7;705	Sig.	

Classroom Teaching	272	66,67	11,41	,572	.779
Foreign Language Teaching	53	68,94	9,87		
Science and Technology Teaching	79	66,80	10,26		
Turkish	71	67,21	11,33		
Mathematics	78	66,36	11,58		
Social Sciences	70	66,41	10,53		
Drawing/Music/ Physical Ed. Teaching	48	64,67	12,07		
Other Fields	42	66,98	12,05		

Discussion and Suggestions

In this study, titled “Perceptions of Teachers on New Primary Education Program”, which is carried out to explore whether there are differences in teachers’ perceptions about new education program put into effect in 2005 and their attitudes towards the program, the results are listed as follow;

The score teachers received from attitude scale on 2005 Academic Year Primary Education Program is detected as 51,69 (SD: 7,83). This results confirms the fact that “Activity teaching makes students more productive and active, learning by practicing and living it paves the way for students to develop positive attitudes and manners towards educational program” (Halat, 2006; Huetinck & Munshin, 2000; Olkun, 2006; Olkun & Toluk, 2003). Furthermore, it is it is defended that reform-based curriculums also motivates students and affects their learning positively. These ideas are parallel to those of Fuson, Carroll and Drucek (2000), and Reys, Reys, Lapan, Holliday, and Wasman (2003).

In terms of genders, no significant difference was detected on teachers’ perspectives of new education program. The result shows consistency with teacher opinions about educational program conditions sub structure in Bulut’s (2006) research; and Yıldırım’s (2006) research in determining teachers’ opinions about renewed mathematic program for the grade 5. However, it demonstrates differences with Gömleksiz’s (2005) research on teachers’ opinion about the application and effectiveness of new primary education program. Gömleksiz (2005) detected a sig-

nificant difference in teachers' opinion about the new primary education program in terms of genders. Moreover, Bulut's (2006) research on the opinions of teachers about the acquisition, scope and assessment of teaching program also demonstrated significant differences in respect to their genders.

It is also detected that teachers' viewpoints towards the 2005 new education program do not differ significantly in respect to their experiences. In Özdemir's (1995) research, it is detected that there is no significant difference in teachers' opinion about having knowledge, application and proficiency of the teaching program. In Bulut's (2006) study, no difference was found among the opinions of teachers about the acquisition, scope, educational level and assessment in respect to their experiences. Also, In Orbeyi's (2007) work, no difference was detected in teachers' opinion about primary education mathematics program's acquisition and scope for Grades 1-5 in respect to their professional experience.

A significant difference was detected in teachers' perspectives of new education program in terms the institutions they work for. The scores of the teachers employed in private primary schools are detected to be higher than those in the state schools. It is due to the fact that physical infra structure of the private schools for the application of the new program is much better than that of the state ones.

In terms of their level of education, no significant difference was detected on teachers' perception of new education program. In Orbeyi's (2007) results also no significant difference was detected in their opinions towards the assessment of teachers' level of education, attainment, content, teaching-learning process of the new instructional program evaluation sizes. The results of Özdemir (1995), Bulut (2006) and Yıldırım (2006) also show coherence with the result of the research.

No significant difference in teachers' perspective of new education program in terms of the faculty of graduation was detected. There is also no significant difference in teachers' perspective of new education program in terms of their field of teaching.

In respect to their marital status, a significant difference of teachers' perspectives on the new education program was detected. The score of the married teachers is determined to be higher than that of the single ones. It seems that the reason why the score of the married teachers is higher than that of the single ones is due to the fact that they evaluate it not

only from professional point of view but also from the perspectives of having children and having emotional considerations. The result seems to be a temporary perception as everyone thinks of his/her children's future.

As an outcome of the research, it is understood that 2005 academic year Primary Education program provides chances for the applied studies, relates theoretical knowledge real life, learning process gives permanent knowledge to the students, helps students participate in learning process actively and effectuates active interaction in classroom and contributes to cognitive-emotional-psychomotor acquisitions of the students.

The suggestions based on the findings of the study are listed below:

- Assessment of the program can be made by setting forth independent variations such as attitude, creativeness, school, age, economic, social surrounding in addition to achievements.
- Physical conditions of the Public Schools must be improved for teachers to apply the program more productively; they must be brought to the levels of private schools.
- Along with the opinions of teachers, those of the students must also be taken into considerations and 2005 academic year primary education program must be criticized.
- Through some techniques like brainstorming opinions of teachers and students must be taken to solve available problems.

Reference/Kaynakça

- Akbaş, O. (2006). Yeni ilköğretim programlarının değer eğitimi boyutunun incelenmesi. Ulusal Sınıf Öğretmenliği Kongresi Bildiri Kitabı içinde (2. cilt, s. 288-303). Ankara: Kök.
- Altun, M. (2007). Matematik öğretimi. Bursa: Aktüel.
- Apay, A. (1996). Ortaöğretimde yeniden yapılanma komisyon raporu. Ankara: Earged.
- Atlioğlu, Y. (1997). Milli eğitim bakanlığında program çalışmaları. Ankara: Earged.
- Bodner, G. M. (1986). Constructivism: A theory of knowledge. *Journal of Chemical Education*, 63, 873-878.
- Bulut, İ. (2006). Yeni ilköğretim birinci kademe programlarının uygulamadaki etkililiğinin değerlendirilmesi. Yayınlanmamış doktora tezi, Fırat Üniversitesi Sosyal Bilimler Enstitüsü, Elazığ.
- Büyüköztürk, Ş. (2007). Sosyal bilimler için veri analizi el kitabı. Ankara: PegemA.
- Cheung, K.C., & Taylor, R. (1991). Towards a humanistic constructivist model of science learning: Changing perspectives and research implications. *Journal of Curriculum Studies*, 23 (1), 21-40.
- Demirel, Ö. (2006). Eğitimde program geliştirme. Ankara: PegemA.
- Doğan, H. (1997). Eğitimde program ve öğretim tasarımı. Ankara: Usem.
- Eden, S., & Lewy, A. (Ed.) (1991). Introduction: Curriculum process. *The International Encyclopedia of Curriculum* (pp. 277-279). Oxford: Pergamon Press.
- Erden, M. (1998). Eğitimde program değerlendirme. Ankara: Anı.
- Ersoy, Y. (2006). İlköğretim matematik öğretim programındaki yenilikler-I: Amaç, içerik ve kazanımlar. *İlköğretim Online*, 5 (1), 30-44
- Fuson, K. C., Carroll, W. M., & Drueck, J. V. (2000). Achievement results for second and third graders using the standards-based curriculum everyday mathematics. *Journal for Research in Mathematics Education*, 31 (3), 277-295.
- Geban, Ö., Önal, A. M. ve Kayatürk, N. (1996). Orta öğretimde kimya konu ve kavramları üzerine öğrenci görüşleri. Ankara: Earged.
- Gömlüksiz, M. N. (2005). Yeni ilköğretim programının uygulamadaki etkililiğinin değerlendirilmesi. *Kuram ve Uygulamada Eğitim Bilimleri Dergisi*, 5, 339-384.
- Halat, E. (2006). Sex-related differences in the acquisition of the van Hiele levels and motivation in learning geometry. *Asia Pacific Education Review*, 7 (2), 173-183
- Holloway, J. H. (1999). Caution: Constructivism ahead. *Educational Leadership*, 57 (3), 85-86.
- Huetinck, L., & Munshin, S. N. (2000). Teaching mathematics for the 21st century: Methods and activities for grades 6-12. New Jersey: Prentice-Hall, Inc.
- Korkmaz, İ. (2006, Nisan). Yeni ilköğretim programının öğretmenler tarafından değerlendirilmesi. Ulusal Sınıf Öğretmenliği Kongresi'nde sunulan bildiri. Ankara: Gazi Üniversitesi.
- Milli Eğitim Bakanlığı [MEB] (2005). Talim Terbiye Kurulu Başkanlığı İlköğretim matematik dersi 6-8. sınıf programı. Ankara: Devlet Kitapları Müdürlüğü.
- Olkun, S. (2006). Yeni öğretim programlarını inceleme ve değerlendirme raporu:

Matematik öğretim programı inceleme raporu. http://ilkogretim-online.org.tr/vol5say1/yenimufredat_raporu%5B1%5D.pdf, 5 (1), 96-111.

Olkun, S. ve Toluk, Z. (2003). İlköğretimde etkinlik temelli matematik öğretimi. Ankara: Anı.

Orbeyi, S. (2007). İlköğretim matematik dersi öğretim programının öğretmen görüşlerine dayalı olarak değerlendirilmesi. Yayınlanmamış yüksek lisans tezi, Çanakkale Onsekiz Mart Üniversitesi, Çanakkale.

Öncül, M. (1990). Talim ve terbiye kurulu kararlarının programlar yönünden analizi (1984-1988). Yayınlanmamış yüksek lisans tezi, Ankara Üniversitesi, Sosyal Bilimler Enstitüsü.

Özat, Y. S. (1997). Ortaöğretimde kimya programının değerlendirilmesi. Yayınlanmamış yüksek lisans tezi, Hacettepe Üniversitesi, Fen Bilimleri Enstitüsü, Ankara.

Özdamar, K. (1999). Paket programlarla istatistiksel veri analizi 2. Eskişehir: Kaan.

Özdemir, S. (1995). Ders geçme ve kredi sistemi üzerine bir araştırma. Ankara: Earged.

Phillips, D. C. (1995). The good, the bad and the ugly: The many faces of constructivism. *Educational Researcher*, 24 (7), 5-12.

Reys, R., Reys, B., Lapan, R., Holliday, G., & Wasman, D. (2003). Assessing the impact of standards-based middle grades mathematics curriculum materials on the student achievement. *Journal for Research in Mathematics Education*, 34 (1), 74-95.

Romberg, T. A., & Shafer, M. C. (2003), Mathematics in context (MiC)-Preliminary evidence about student outcome. In S. L. Senk & D. R. Thompson (Eds.), *Standards-based school mathematics curricula. What are they? What do students learn?* (pp. 224-250). NJ.: Lawrence Erlbaum Associates.

Uçar, M. (1999). İlköğretimde ders araç-gereçleri kullanımı konusunda öğretmen görüşlerinin değerlendirilmesi. *Akdeniz Üniversitesi Sosyal Bilimler Dergisi*, 3, 195-207.

Taşpolatoğlu, A. E. (1993). Türk milli eğitiminde cumhuriyetten günümüze program geliştirme alanındaki gelişmeler ve bir eğitim programının temel özelliklerine ilişkin uzman görüşleri. Yayınlanmamış yüksek lisans tezi, Hacettepe Üniversitesi, Sosyal Bilimler Enstitüsü, Ankara.

Töremen, F. (1999). Devlet liselerinde ve özel liselerde örgütsel öğrenme ve engelleri. Yayınlanmamış doktora tezi, Fırat Üniversitesi, Sosyal Bilimler Enstitüsü, Elazığ.

Turgut, O. (1992). Cumhuriyet dönemi ilk ve ortaöğretim programları ve bu programlardan alınan öğretim belgelerinin değerlendirilmesi. Yayınlanmamış yüksek lisans tezi, Hacettepe Üniversitesi, Sosyal Bilimler Enstitüsü, Ankara.

Yapıcı, M. (2007). Yapılandırmacılık ve sınıf. <http://www.universite-toplum.org> adresinden 10 Mayıs 2010 tarihinde edinilmiştir.

Yaylacı, G. Ö. (2007). İlköğretim düzeyinde kariyer eğitimi ve danışmanlığı. *Bilgi*, 40, 119-140.

Yıldırım, M. C. (2006). Yeni ilköğretim programının değerlendirilmesi. *Ulusal Sınıf Öğretmenliği Kongresi Bildiri Kitabı içinde* (2.cilt, s. 261-268). Ankara: Kök.

Yıldırım, A. ve Şimşek, H. (2005). Sosyal bilimlerde nitel araştırma yöntemleri. Ankara: Seçkin.