

AIBU JOURNAL OF FACULTY OF EDUCATION
**TEACHERS' POINT OF VIEWS ON AFFECTIVE DOMAIN
APPLICATIONS IN THE SECONDARY ELEMENTARY
SCHOOLS**

Yrd. Doç. Dr. Bayram BIÇAK

**A.İ.B.Ü. Eğitim Fakültesi, Eğitimde Ölçme ve Değerlendirme
A.B.D**

ABSTRACT

Teachers' affective domain applications in the junior high schools were explored in this study. 131 junior high school teachers participated in the study. They were selected randomly from 465 schools in central Ankara. Teachers answered a 57-item questionnaire. Ten of the teachers were interviewed based on the questionnaire items used for the study. Differences among teachers were studied according to years of teaching experience, amount of pedagogical units taken during the teacher training, and familiarity levels of affective domain taxonomies. Group differences were evaluated by performing t tests and analyses of variance (ANOVA). Results showed that there was a significant difference between the teachers who took different levels of pedagogical units. On the other hand, more experienced teachers in years of teaching did not show significant difference than the less experienced teachers. Moreover, being familiar with affective domain taxonomies did not show statistically significant difference. The implications of the findings are discussed.

A: INTRODUCTION

Goals of Turkish Education

The National Program of the Turkish Ministry of Education includes cognitive, affective, and psychomotor domains as important components at the different levels of schooling. Creating instructional learning targets from these domains is required of all teachers. As stated in the national program, the general goals, considered the essence of curriculum studies and classroom applications, are:

1. To raise all individuals as citizens who are committed to the principles and reforms of Atatürk and to the nationalism of Atatürk, the founder and liberator of the Republic of Turkey, as expressed in the Constitution, who adopt, protect and promote the national, moral, human, spiritual and cultural values of the Turkish Nation, who love and always seek to exalt their family,

country and nation, who know their duties and responsibilities towards the Republic of Turkey which is a democratic, secular and social state governed by the rule of law, founded on human rights and on the tenets laid down in the preamble to the Constitution, and who have internalized these in their behavior.

2. To raise them as constructive, creative and productive persons who are physically, mentally, morally, spiritually and emotionally balanced, have a sound personality and character, with the ability to think freely and scientifically and have a broad worldview, that are respectful for human rights, value personality and enterprise, and feel responsibility towards society;

3. To prepare them for life by developing their interests, talents and capabilities and providing them with the necessary knowledge, skills and attitudes and the habit of working with others and to ensure that they acquire a profession which shall make them happy and contribute to the happiness of society. (Turkish Ministry of National Education, 2002, chap. 2, p. 1)

As can be seen above, in the general goals of the Turkish National Education system, the affective domain is very relevant to the implementation of educational goals. Expectations of students in this domain are at considerably high level. Teachers are considered well qualified to assist students in achieving these objectives.

Presumably, better-qualified teachers will produce greater achievement in students before they are labeled unsuccessful. Teacher education programs in Turkey are well developed. Teachers are educated in subject areas and are given pedagogical formation courses before receiving their certification. Without educational formation coursework, teacher candidates are not certified. Educational formation programs include educational psychology, educational measurement, general and specific teaching methods, educational sociology, educational philosophy, and curriculum development courses and so on.

Teaching methods, educational measurement, and curriculum development courses include coverage of the Bloom (1954) and Krathwohl

(1964) taxonomies of educational objectives. They are taught in detail and teacher candidates are strongly urged to use them in the classroom.

The affective domain described in Krathwohl's taxonomy can provide teachers with a guide to behavior patterns indicative of each student's attitudinal development. This taxonomy is not the only answer, but it is a useful tool for developing students' motivation in a more controlled way.

Even though, many studies have been conducted to explore students' learning of elements of the affective domain, very little attention has been given to the teachers' view of how they apply elements from the affective domain in the classroom. Most studies collect data from students to explore teachers' attitude toward them. However, there are no significant studies of whether teachers consciously attempt to teach toward affective objectives or understand the theoretical knowledge and practical applications that need to be used to implement affective teaching. It is a well-know fact that most of the teachers are using Bloom's cognitive taxonomy as a reference to create cognitive objectives for their teaching units and daily lesson plans. Affective domain objectives are considered as important as cognitive objectives in order to achieve lesson objectives. However, it is not clear whether affective objectives are planned for and taught by classroom teachers. Therefore, the purpose of this study was to investigate teachers' affective domain applications, whether teacher implement them in the classroom in terms of teachers' pedagogic formation backgrounds, experience levels in teaching, familiarity with affective domain taxonomies.

Definition of the Affective Domain

Although no single definition of the affective domain has been agreed upon by researchers, there are several definitions that are commonly accepted. Warren (1936) described "affect" as the dynamic and essential constituent of emotion. English and English (1958) describe "affect" as a class name for feeling, emotion, mood, and temperament. Later, Eysenck (1972) used "affect" to characterize a feeling state or particular intensity of feelings. Defining the affective domain can also be as simple as the notion that thinking is cognitive; therefore, feelings and emotions are affective. However, most attempts to define the affective domain have introduced elements of uncertainty as to the cause and effect of certain behaviors. For example, Byrne (1984) reported that a student's self-esteem (affective state) was related to that student's achievement level

(cognitive state); however, she could not determine which was the cause and which was the effect.

Early attempts, such as those made by Bloom, seemed to place the definition of affective in opposition to that of cognitive, by associating cognitive with thinking skills and affective with emotions and feelings. Understandably, this was a starting point for providing explanation; however, it represented a view too much broad when feelings and emotions were explored in terms of student behavior and achievement.

Bloom (1956) contended that the taxonomy of the affective domain included learning objectives that described changes in interest, attitude and values, and the development of appreciation and adequate adjustment. Krathwohl et al. (1964) offered a classification system for affective classroom learning objectives. The affective behaviors were ordered along a continuum of internalization representing a continuous modification of behavior from an individual being aware of a phenomenon to a pervasive outlook on life that influenced all of one's actions. Krathwohl's taxonomy of educational objectives in the affective domain is based on a concern with the degree of internalization (i.e., degree to which an attitude or value becomes part of one's daily habits). The taxonomy includes such categories as receiving, responding, valuing, organizing, and characterizing by a value or value complex.

Anderson (1981) proposed that the affective learning of students could be organized into the category of values, academic self-esteem, anxiety, interests, locus of control, attitude, and preferences. Anderson suggested these affective characteristics must (a) include essential features of involved feelings and emotions, (b) be typical of the thoughts or behaviors of the person, (c) have intensity or strength of feelings, (d) have a positive or negative direction or orientation of feelings, and (e) have a target for which the feeling is directed.

Martin (1989) stated, "The affective domain is a complex and often nebulous area in which to design instruction. In addition, there is a great deal of confusion about which constructs should be included in the domain and which should be omitted" (p. 7). Martin pointed out several philosophical questions each school, teacher, or instructional designer should resolve before designing such instruction. Reaching a consensus about indoctrination or whose values or what attitudes will become the benchmark for defining affective behaviors are a few of the unresolved issues in this area.

Martin developed a checklist for those who were designing instruction in the affective domain. By using a series of questions, the instructional designer was led through several important areas of the

affective domain. The checklist was intended for use only after serious consideration of several critical issues had been met with a high degree of consensus and resolve.

Affective Domain Models

The first taxonomy of educational objectives for the affective domain was developed by Krathwohl, Bloom, and Masia in 1964. This taxonomy organized such affective constructs as attitudes, appreciation, and valuing within a hierarchical continuum. This model is well-known and is emphasized, along with Bloom's cognitive domain model, during the Turkish teacher education process. This process is used for Teachers' educational formation in Turkey.

After the first steps of Krathwohl for developing the constructs for the affective domain, several researchers created their own sets of constructs. One of the most different models was constructed by Raths, Harmin, and Simon (1966). Travers (1973) stated that Raths, Harmin, and Simon emphasized three processes by which values may be acquired:

The processes are involved in the acquisition of affective responses: choosing, prizing, and acting. The process of choosing requires that it be chosen freely, from among alternatives, and after thoughtful consideration of each alternative. Prizing includes being happy with a choice and a willingness to make it public. Finally acting includes activity involved in using the choice and doing it repeatedly. To clarify the values of students' teacher are suggested different strategies in this model such as individual and group work material. (p. 763)

In addition to these taxonomy models, a new affective taxonomy was developed by Martin and Briggs (1986). Their affective taxonomy includes social capacity, values, moral and ethics, maintained motivation, the attitudes, and the emotions and feelings are considered subordinates (p. 448).

Though there are three different affective domain models, Turkish teacher preparation programs emphasize and urges teachers to use Krathwohl's affective domain model in their classroom practices.

Research on Teachers' Use of Affective Domain Taxonomies

While researchers have looked at the extent to which teachers use instructional design theory in their planning of lessons, no attempt appears to have been made to discern how teachers look at objectives or goals in terms of planning, and applications of in the affective domain. If the field of instructional systems technology is to make an impact on teacher practice, it is critical to know more about the actual planning of affective instruction by teachers. Therefore, there was a remarkable gap that needs to be fulfilled by significant studies for the applications of affective domain.

Research Questions

The specific research questions addressed by this study were:

1. Is there a difference in the mean of affective domain applications among teachers who took more pedagogical units than teachers who took less pedagogical units during the teacher training program?
2. How does the years of experience in teaching influence the level of importance teachers place upon affective goals?
3. Is there a difference in the means of application levels of the teachers who are familiar with the affective domain taxonomies?

Hypotheses

The following hypotheses were investigated:

1. There is no difference in the mean of affective domain applications for teachers who took more pedagogical units than teachers who took less pedagogical units.
2. Years of experience in teaching does not affect teachers' values of the importance of teaching affective domain objectives.
3. There is no difference in the mean of application levels of teachers who are familiar with the affective domain taxonomies than the teachers who are not familiar with the affective domain taxonomies.

B: RESEARCH DESIGN AND METHODOLOGY

Population and Sample

The population of interest was all junior high school teachers in central Ankara, Turkey. Table 1 shows the available data on teachers in this population.

Table 1
Descriptive Statistics about Public Elementary Schools in Ankara, Turkey

Ankara	Public Elementary Schools
Number of Elementary Schools (Grades 1-8)	465 (Central Ankara)
Number of Teachers (Grades 1-8)	21,670
Number of Students (Grades 1-8))	570,596

(Adapted from Turkish National Ministry of Education, 2002, Chap. 5.)

In 1997 compulsory education increased from 5 to 8 years in Turkey. Since then, junior high schools were considered to be part of the elementary schools. Currently, junior high schools are seen as the second level of elementary schools, based on the first five years of basic education. For this reason, official statistics showing the total number of teachers, as in Table 1, represents all teachers at all grade levels include the junior high school teachers. No statistics have been published to distinguish the number of junior high school teachers from the number of elementary school teachers working in Ankara. In order to verify that junior high school teachers were selected from among the elementary school teachers in the sample, two items were used in the demographic information part of the questionnaire. The questions asked teachers' subjects and current grade level of teaching. Also, in the teachers' recruitment letter it was especially emphasized that study was limited to the junior high school teachers.

Participants for this study were selected from Ankara junior high schools. The participants were current employees of the National Ministry of Education.

The constraints of limited finances for the study enable choosing 13 schools from the target population. The best way to select teachers would be listing all the teachers and choosing a certain number of participants randomly from the target population. However, finding an actual list of teachers in the junior high schools, which is not exactly known, was not possible for this research. Instead, from the list of all elementary schools (465) in Ankara, 13 elementary schools, from the central counties of Altındağ, Çankaya, Keçioren, Mamak, Sincan and

AİBÜ EĞİTİM FAKÜLTESİ DERGİSİ

Yenimahalle, were randomly selected. Using a random selection procedure serves the representativeness of the sample through the whole population. The 13 schools included 194 junior high school teachers. All the junior high school teachers teaching in the selected schools were included in the study sample. Table 2 shows the number of teachers and return rate for collected questionnaires for the study.

Table 2
Response Rate for Collected Questionnaires

Elementary Schools	Distributed Questionnaire	Returned Questionnaire	Response Rate
A	16	15	.93
B	14	9	.64
C	21	14	.66
D	10	9	.90
E	12	8	.66
F	11	7	.63
G	12	12	1.00
H	12	6	.50
I	14	10	.71
J	21	13	.61
K	20	13	.65
L	9	6	.66
M	12	9	.75
Total	194	131	.68

Note: School names are not used to ensure confidentiality.

Instrumentation

Framework for the Instrument

A teacher questionnaire was applied to detect following aspects of the affective domain.

1. Teachers' applications of affective objectives in the teaching process.
2. Teachers' views of the importance of affective goals.

With the above framework, the instrument therefore, covered:

- Classroom applications
- Level of importance

Pilot Study and Revision Procedure

A pilot study was conducted to improve the psychometric qualities of the questionnaire. For this purpose, 10 American and 10 Turkish teachers were selected from the Tucson Unified School District and the Ankara region of Turkey, respectively. An item analysis was conducted and information was gathered about the clarity of wording. To detect content, construct, and face validity of the questionnaire, expert opinion was collected from three different professors at the University of Arizona. Two of the professors specialize in testing and measurement, and one in teacher education. Using their suggestions, test items were reorganized and the questionnaire was prepared for final applications.

The main source of the data for this study is a questionnaire that was administered to junior high school teachers via school principals in Ankara. Although, there are some weaknesses of the questionnaire method, this is the most suitable method among the other data collection procedures for the purposes of this study to survey the large number of teachers involved.

In addition to the questionnaire, a semi-structured interview was performed with 10 junior high school teachers. These 10 teachers were randomly selected from the study sample. The purpose of the interviews was to confirm and validate the questionnaire results.

The literature on affective domain studies, textbooks, dissertations, and periodicals were used as the basis for constructing the questionnaire. A preliminary draft of the questionnaire was tested to determine whether it was clear and was likely to yield the necessary information. The draft of the items were submitted to ten secondary school teachers in Pima County, Tucson and two professors from the Department of Educational Psychology, and one professor from the Teaching and Teacher Education Program, the University of Arizona. On the basis of suggestions from these individuals, the format of the questionnaire was improved, ambiguous terms and phrases were refined, and some redundant and unnecessary items were deleted. The same professors reviewed the content of the questionnaire in order to check appropriateness, clarity, and soundness of the items.

AİBÜ EĞİTİM FAKÜLTESİ DERGİSİ

In the next step, the questionnaire was translated into Turkish by the researcher. Three native speaking Turkish elementary school teachers who are working in the Sonaran Elementary School of Tucson, a private non-profit elementary school, did proof reading to reduce possible sentence construction and grammatical mistakes. To validate the accuracy of translation, the Turkish and English versions of the questionnaire were also given these three elementary school elementary teachers who were fluent both in English and Turkish. The teachers read the items and instructions one by one in the English and Turkish versions, and they decided on each translated part if the meanings are identical in both languages. The teachers also decide on clarity and meaningfulness of the translated items in Turkish. Since the actual participants of the study were Turkish elementary school teachers, the clarity and soundness of the items were especially considered important and Turkish reviewers were asked to pay special attention to the Turkish version of the questionnaire.

Interviews

The second data source was a semi-structured interview. Ten different interviews were conducted with teachers. The teachers were randomly selected for the interview from among those who responded to the questionnaire in the selected schools and scheduled as a half hour meeting in their schools. There also were four alternate teachers who also were randomly selected. A randomly selected 20 items from the questionnaire were used for the interviews. However, the questions were asked in an open-ended format. Information collected via interviews helped to crosscheck the responses given to the questionnaires.

Data Analysis

The responses to the questionnaire were entered into an Excel datasheet and the SPSS-10 statistical package was used to analyze the data. A t test for paired comparisons and the analysis of variance (ANOVA) statistical procedures were used to detect mean differences. There were very small amounts of missing data which were replaced before computations by using the item mean replacement procedure.

C: RESULTS***Participant Demographics***

This part summarizes the results of the analysis. General characteristics of 131 teachers participated in the study are presented in Table 4.1.

The years of teaching experience were categorized into five different categories: 1-5 year (19.1%), 6-10 years (31.3%), 11-15 years (16%), 16 to 20 years (14.5%), and 21 years and higher (19.1%). The percentage of teachers in each of these five categories distributed quite similarly except the group "6 to 10 years of experience." This group of teachers was relatively larger than the other group of teachers.

The "pedagogical units" variable was categorized into three levels, up to 18 units, 66 (50.4%); 19-30 units, 26 (19.8%); and 31 and more units, 39 (29.8). The majority of the pedagogical units located in the group "up to 18."

Teachers' familiarity level with affective taxonomy procedures was grouped into two categories: (1) teacher who learned theoretical and practical knowledge about the Krathwohl's affective domain taxonomy and/or the Raths, Harmin and Simon's affective taxonomy procedures, were classified as familiar with an affective domain objectives taxonomy, and (2) other teachers classified as unfamiliar with an affective taxonomy. As indicated in Table 3, 44 (33.6%) teachers were familiar and 87 (66.4%) teachers were not familiar with an affective objectives taxonomy.

Table 3
Demographics of Participating Teachers

		Frequency	Percent
Experience in Years	1-5 year	25	19.1
	6-10 years	41	31.3
	11-15 years	21	16.0
	16-20 years	19	14.5
	21- more	25	19.1
Pedagogical Unit	Up to 18	66	50.4
	19-30	26	19.8
	31 more	39	29.8
Taxonomy	Familiar	44	33.6
	Unfamiliar	87	66.4

Analysis of Interview

Interview results, based on 20 items from the questionnaire, were used to confirm the consistency of the data collected through the questionnaire. The responses were collected from 10 interviews and were compared to the interviewees' own questionnaire results. A correlation analysis showed that there was a perfect relationships between the response scales, $r = .98$. The short time interval, one week, between the interview and written questionnaire could be a reason for obtaining such a high correlation.

Analysis of the Research Hypotheses

Before the analysis of the data that addresses the hypotheses, a coefficient alpha was computed as an index of reliability for each subscale and for the total scores of the questionnaire. Total test reliability coefficient was .90.

Analysis for Hypothesis 1

The summary statistics for Hypothesis 3, "There is no difference in the mean of affective domain applications for teachers who took more pedagogical units than teachers who took less pedagogical units," are presented in Table 4

Table 4

Summary Statistics for 3 Different Unit Levels by the Application Scale (Items 1 to 37 from Part of the Questionnaire)

	Units		
	Up to 18 units	19-30 units	31 more units
Mean	2.46	2.32	2.60
SD	.47	.43	.42
N	66	26	39

Hypothesis 3 was tested by performing an ANOVA using the data summarized in Table 5. Difference at the .05 level was considered significant. The result of this analysis was utilized to answer the research question, "Is there a difference in the mean of affective domain applications among teachers who took more pedagogical units than teachers who took less pedagogical units during the teacher training program?"

The results of the analysis of variance, presented in Table 5, shows that there is a significant difference for at least one pair of the means for

different levels of units, $F(2,128) = 3.16$, $p = 0.046$. Eta is reported as an effect size, $\text{Eta} = .217$, $\text{Eta Squared} = .047$

Table 5
Analysis of Variance for Application Performance by Three Different Unit Levels

Source	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	1.28	2	.64	3.16	.046
Within Groups	26.04	128	.20		
Total	27.33	130			

*The mean difference is significant at the .05 level.

A Tukey post hoc multiple comparison test indicated that there were no significant differences between the application performance for "up to 18 unit" vs. "19-30 unit" groups, and "up to 18 unit" vs. "31 and more unit" groups. However, there is a significant difference between the groups "19-30 units" and "31 and more units", $p = 0.03$ at alpha 0.05 level. The Tukey analysis results are shown in Table 6.

Table 6
Tukey Post Hoc Analysis for Application Performance by Three Different Pedagogic Unit Levels

Tukey HSD	UNIT	UNIT	Mean Difference	Std. Error	Sig.
Up to 18	19-30		.13	.10	.39
	31 more		-.14	.11	.23
19-30	Up to 18		-.13	.10	.39
	31 more		-.28	.11	.03*

*The mean difference is significant at the .05 level.

Analysis for Hypothesis 2

The summary statistics are presented in Table 7. According to Table 7, teachers with 21 and more years of experience shows the highest mean, 2.60, and teachers with 1-5 and 6-10 years of experience show lower group means, 2.49.

Table 7
Average Scores on the Importance Variable for Teachers with Different Amount of Teaching Experience (Importance Variable Consist of Items 1, 2, 4, 5, and 13 on Part III)

	Years of Experience				
	1-5	6-10	11-15	16-20	21 and More
Mean	2.49	2.49	2.53	2.56	2.60
SD	.79	.71	.69	.61	.69
N	25	41	2	19	25

A one way analysis of variance to determine the statistical significance of differences in terms of years of experience revealed that there is no significant difference across the groups. As shown in Table 4.13, $F(4,126) = .11$, $P = .97$. Eta is reported as an effect size, $\eta = .061$, $\eta^2 = .004$.

Analysis for Hypothesis 3

The sum of the responses to Part II of the questionnaire, Items 1-37, were used to calculate application scores for teachers. There were two groups of teachers: teachers who are familiar with Krathwohl's taxonomy, and/or with the Raths, Harmin and Simons's taxonomy (R&H&S), and teachers who are not familiar with any taxonomy. Application mean scores are presented in Table 8.

Table 8

Summary Statistics for Teachers Who Are Familiar with the Taxonomy Concept and Teachers Who Are Not Familiar with the Taxonomy Concept

	Familiarity with Taxonomy	
	Familiar	Unfamiliar
Mean	2.49	2.46
SD	.44	.47
N	44	87

An independent groups t test was performed to compare group means. The t test showed that the group means were not significantly different for the teachers who were familiar with a taxonomy and teachers who were not familiar with a taxonomy. Difference at the .05 level was considered significant, $t(129) = .25$, $p = .800$. Cohen's d statistic is reported as a measure of effect size; $d = 0.048$.

D: DISCUSSION

The affective domain concept is a broad and it is open to misconceptions by teachers from their understanding to their application. Researchers and educators have made many attempts to make the affective domain concepts clear and more useful concrete useful for teachers so that the affective domain increases the efficiency of the cognitive outcomes in schools.

Krathwohl's Taxonomy of Educational Objectives, Affective Domain (1964) was accepted by educators worldwide and translated many different languages to be used in classroom settings, since *Bloom's Taxonomy of Educational Objectives Cognitive Domain* (1954) was a great tool has been used successfully by many educators in instructional designs.

The following recommendations are suggested according to the findings of the study:

Years of teaching experience was shown to be positively related to the applying the affective domain in the classroom. Experienced and successful teachers can be used as role models for young and inexperienced teachers. This may help to improve classroom applications.

Teachers consider the affective objectives important. Indeed, teachers with high pedagogical units have the most positive points of view toward affective domain applications. Therefore, increasing the number of pedagogical units (that is, giving teachers more pre-service training) and supporting teachers with in-service programs may increase teachers' view of the importance of affective domain applications in the classrooms.

Teachers who are familiar with any of the affective domain taxonomy did not show any statistical difference from teachers who are not familiar with affective domain taxonomies. This surprising result needs to be considered important outcome and should be taken more attention. This result implies that teachers who are familiar with taxonomies are not considering the model taxonomies as an important resource for affective domain classroom applications. This does not mean that teachers do not know the concept of affective domain models however they do not implement this knowledge into teaching process.

The study focused on junior high school teachers in Turkey. The study can be extended to different grade levels from K to 12 since affective applications are supposed to be part of teaching at these grade levels. Conducting new studies with increased sample size may increase the generalizability of the study

AİBÜ EĞİTİM FAKÜLTESİ DERGİSİ

Collecting data from a single source, such as done in this study, may not be complete enough to explore the affective domain applications in schools because of the complex nature of affective domain and of classrooms themselves. Therefore, further follow up studies should use multi-methods in more controlled research environments. This may help to explore pros and cons of the affective domain applications in classroom settings.

REFERENCES

- Anderson, L. W. (1981). *Assessing affective characteristics in the schools*. Boston: Allyn and Bacon.
- Martin B. L. (1989) A checklist for designing instruction in the affective domain. *Educational Technology* 29(August), 7-15.
- Bloom, B. S. (Ed.) (1956). *Taxonomy of educational objectives: The classification of educational Goals. handbook I: Cognitive domain*. New York: Longman, McKay.
- Byrne, B. (1984). The general/academic self-concept nomological network: A review of construct validation research. *Review of Educational Research*, 54, 427-526.
- English, H. B., & English, A. C. A. (1958). *Comprehensive dictionary of psychological and psychoanalytical terms*. New York: Longman, Green.
- Eysenck, H. J., Arnold, W., & Meili, R. (1972). *Encyclopedia of psychology. Vol. 1, A to F*. New York: Herder and Herder.
- Krathwohl, D. R., Bloom, B. S., Masia, B. B. (1964). *Taxonomy of educational objectives: The classification of educational goals. Handbook II: Affective domain*. McKay, NY: Longman.
- Martin, B. L., (1989). A checklist for designing instruction in the affective domain. *Educational Technology*, 29, 7-15.
- Raths, L. E., Harmin, M., & Simon S. B. (1966). *Values and teaching: Working with values in the classroom*. Columbus, OH: Merrill

- Reigeluth, C. (1983). *Instructional-design theories and models: An overview of their current status*. Hillsdale, NJ: Lawrence Erlbaum.
- Rompelman, L. (2002). *Affective teaching*. Lanham, Maryland: University Press of America.
- Sinclair, K. E., (1985). Student's affective characteristics and classroom behavior. *The international encyclopedia of education*. Oxford, England: Pergamon.
- Snow, R. (1987). Aptitude complexes. In R. Snow & M. Farr (Eds.), *Aptitude, learning and instruction, cognitive process analyses of aptitude* (Vol. 3, pp. 11-34). Hillsdale, NJ: Erlbaum.
- Snow, R., and Farr, M. (1987). Aptitude complexes. In R. Snow & M. Farr (Eds.), *Conative and affective process analysis* (Vol. 3, pp. 11-34). Hillsdale, NJ: Erlbaum.
- Snow, R. (1989). Aptitude-treatment interaction as a framework for research on individual differences in learning. In P. Ackerman, R. J. Sternberg, & R. Glaser (ed.), *Learning and individual differences*. New York: Freeman.
- Snow, R. E. & Swanson, J. (1992). Instructional psychology: Aptitude, adaptation, and assessment. *Annual Review of Psychology*, 43, 583-626.
- Travers, R. M. R. (Ed.). (1973). *Second handbook of research on teaching*. Chicago: Rand McNally.
- 2001 Yılı başında milli eğitim. Retrieved December 15, 2002, from <http://www.meb.gov.tr/Stats/ist2001/Bolum5s3.htm#g14>
- Warren H. C. (1934). *Dictionary of psychology*. Boston: Houghton Mifflin.

Yazışma adresi:
bicak_b@ibu.edu.tr