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## Development of “educational faculty students’ attitudes towards their departments” attitude scale study

Yucel Gelisli<sup>a\*</sup>

<sup>a</sup>Gazi University Gazi Faculty of Education Educational Sciences Department  
Curriculum and Instruction Program, Ankara, 06500 Turkey

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### Abstract

The aim of the study is to develop an attitude scale measuring Gazi University Gazi Faculty of Education students’ attitudes towards their departments. In the context of the study the adaptation of the previous 26-item Vocational Educational Faculty Students’ Attitudes towards Their Departments Attitude Scale developed by the researcher has been made. After the adaptation of 26-item Vocational Educational Faculty Students’ Attitudes towards Their Departments/Programs Attitude Scale, 6 items have been added to the scale. The trial form of the prepared scale has been composed of 32 likert-type trial sentences from item pool. The items have been evaluated in terms of content validity with expert opinion and the final version of the 32-item trial form has been prepared. The developed trial form has been applied to 340 students from Gazi University Gazi Faculty of Education from different departments and grades.

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**Keywords:** Attitude, attitude towards department, attitude scale development

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### 1. Introduction

The expectations of students from learning and teaching processes have an important effect on their inclinations towards school and courses. The expectation levels of students are also very important in shaping their attitudes towards school and courses.

School success is the basic benchmark showing how much an individual has benefited from a specific course or

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\* Corresponding author. Tel.: +90 -5053192395  
E-mail address: [gelisli@gazi.edu.tr](mailto:gelisli@gazi.edu.tr)

program in school environment. Various factors affect the success of students at school. These factors, also known as “learning variable”, are related with physiologic, psychologic, cognitive, psychomotor, emotional and social conditions. Moreover the experiences the students gained in previous learning processes also effect them in gaining positive or negative attitudes towards school and courses (Gelisli,2010). Attitudes are important determiners of inclinations towards school and courses.

In other words affective features can be handled as one of the most important determiners of school success. In this context affective factors such as attitude, self sufficiency, motivation, anxiety can be thought to effect many factors foremost the will and interest of students towards courses therefore many other factors all resulting in effecting student performance and therefore academic success (Kan, Akbaş, 2005; 228 ).

To like or dislike or to approve or unapprove a situation encountered helps to show the attitude of an individual but would be incomplete to tell the attitude exactly. However to accept or reject a situation, to show inclination to a situation or not, to be on side of a situation or not all show the attitude of an individual throughly. The basis of the attitude is the manner of the individual fostered to a situation. The manner of the individual effects the acceptance or rejection of the situation by the individual (Çetin, 2006; 30).

“Attitudes are learnt inclinations towards specific objects, situations, institutions, contents and other people. With this meaning inside, attitude could be said to include the guidance of individual’s behaviour, thoughts and feelings towards the psychological object moreover the situation of being on side or opposed of that situation, object or person. Attitudes are formed in a psychological intellectual formation and with the effects of social value, norm and relationships” Pehlivan, 1994; 49).

Student attitudes about school and learning that are more generalised to a wider aim than a specific subject or course becomes more determined in course of time and so changing it with external factors becomes hard. Even in some situations attitudes go forward than school and learning and becomes the self attitude (self concept) and in this instance it is much more difficult to be changed. For all these reasons all educational institutions should determine the attitudes of its students towards course, institution, staff members, friends and should make an effort to change when a negative situation is investigated (Pehlivan, 1994; 50).

Attitudes are one of the most important determinants of human behaviours. The attitudes of individuals significantly affect their love, hatred and behaviours. Attitude is one of the psychological variables that are subject to measurement and research in behavioral science. The measurements of attitudes are depended upon their identification. In this respect measuring the attitudes and knowing the attitude level people have towards related object or situation is a desirable situation in most fields. Attitude is a phenomenon that is acquired with learning, guiding the individual’s behaviours and having the likelihood of causing partiality in decision making process. Developing positive attitude towards a course includes behaviours such as; the will to attend and participate in the course, being satisfied for responding, accepting that it has a value and accepting it as a value (Tezbaşaran, 1997; 1. Kan, Akbaş, 2005; 228).

In also higher education various factors affect student success. Courses given in the faculty, the quality of teaching environments, scholarships, employment qualities, facilities for social and sportive activities increase the school satisfaction levels of students, help them to reach their expectations, affect their success levels (Gelisli;2010).

Various reasons have important roles for students’ attitude development towards their departments. Staff members’ attitudes towards students, department programs, the fulfillment levels of expectations from these programs, physical equipment qualities of the teaching environment, equipments and employment opportunities after graduation are effective in students’ attitudes they develop towards their departments. Aim

The aim of this study is to develop an attitude scale in order to determine the attitudes of Gazi University Gazi Faculty of Education students’ towards their departments.

## 1. Method

In this research aiming to develop a scale that measures the attitudes of Gazi University Gazi Faculty of Education students towards their departments, survey model has been used. In this section, the study group, development of the measurement tool and the techniques used in data analysis has been dealt.

## 2.1. Study Group

The study group of the research has been composed of the students of eleven teacher training programs in Gazi University Gazi Faculty of Education in 2013-2014 academic year. In composing the sample of the research grade and teacher training program have not been regarded.

**Table 1:** Distribution of Students According to Teacher Education Programs

Teacher Education Programs	Number	Percentage
Preschool Education	81	23,8
Psychological Counseling and Guidance	36	10,6
English Language Education	29	8,5
Social Sciences Education	6	1,8
Primary School Teaching	68	20,0
Turkish Language Education	49	14,4
Elementary Mathematics Education	16	4,7
Philosophy Education	20	5,9
Computer Education and Instructional Technology	5	1,5
Art Education	20	5,9
Science Education	10	2,9
<b>Total</b>	<b>340</b>	<b>100,0</b>

A total of 340 students from eleven teacher training programs have participated in the research. 23% of students were from preschool education training program, 20% of students were from primary school teaching program and 14.4% of the students were from Turkish Language education program.

**Table 2:** Gender Distributions of the Students

Gender	Number	Percentage
Female	268	78,8
Male	71	20,9
Not specified	1	,3
<b>Total</b>	<b>340</b>	<b>100,0</b>

Out of total 340 students participated in the research 268 were female (%78.8) and 71 were male (%20.9).

## 2.2. Development of the Scale

In the scope of the study 26-item “Vocational Educational Faculty Students’ attitudes Towards Their Departments Attitude Scale” (Gelisli; 2010) previously developed by the researcher has been adapted to faculty of education in order to determine the attitudes of faculty of education students towards their departments. Item adaptation to the 26-item Vocational Educational Faculty Students’ attitudes Towards Their Departments Attitude Scale has been made according to the general educational faculties’ departments/programs; thereafter 6 items have been added to the scale. The new scale has been composed of 5-point-Likert type 32 items taken from item pool. The items have been evaluated in terms of content validity with expert opinion and the final version of the 32-item trial form has been formed. In order to obtain information about the validity of the scale over the obtained data positive items were scored according to likert type scale format as 5= Strongly Agree, 4= Agree, 3= partly agree, 2= Disagree, and 1= Strongly Disagree whereas the negative items were scored exact opposite. The developed trial form has been applied to a total of 340 students from different departments and grades in Gazi University Gazi Faculty of Education.

After the attitude sentences have been scored, item analysis has been made in order to elect the items not working well. Attitude statements prepared by item analysis have been examined in terms of being consistent among themselves, being decisive and having the power of awakening the desired response without awakening the undesired responses. For this purpose, correlation between for each item scores the group has taken from that item and the scores the group has taken from all scale items have been computed. Items showing high correlation with the whole scale scores have been kept while the others are eliminated. After the content validity of the scale has been examined, three stages have been implemented for structure validity. These are factor analysis, item total correlations and item discriminate analysis (Tavşancıl; 2006).

With the factor analysis implementation whether the 32-item “Educational Faculty Stundets’ Attitudes towards their Departments” scale was single or multi factor has been tried to determine. With this aim one of the factor analysis techniques, principal components analysis has been used on the data in the analysis made, no intervention has been made to the number of the factors and factors have been set free.

In the first stage whether the data are adequate for factor analysis or not has been controlled by Kaiser-Meyer-Olkin (KMO) coefficient and Barlett Sphericity test (Büyüköztürk, 2005). After the adequacy of the data for factor analysis, descriptive factor analysis for examining the structure validity and factor structure of the Educational Faculty Students’ “Attitude Scale towards Their Department” has been used while principal components analysis has been used as factoring technique. In the analysis; common factor variance of factors on each variable, factor loads of items, variance ratios explained and line graph have been examined. Factor loadings of the items have been chosen as minimum .45

## 2. Findings And Discussion

Before factor analysis has been made to the scale, reliability analysis has been made and cronbach alpha reliability coefficient of the scale has been found as .924. The adequacy of the scale for factor analysis has been controlled by Kaiser-Meyer-Olkin (KMO) coefficient and Barlett Sphericity test. The result for KMO (Kaiser Meyer Olkin) was found as 0.908 and for Barlett test (Bartlett’s test of Sphericity) it was found 4200,325 ( $p < 0.01$ ). Taken into account that the KMO values more than .600 could be accepted (Büyüköztürk, 2005, Akgül, 1997:581) it is understood that the obtained KMO value is a very high value. According to both test results it is concluded that the factor analysis made are the adequate analysis for the data obtained.

Before intervening to the factors principal components analysis has been made to scale; items having factor load more than .45 have been taken into examination and it has been observed that the scale has three dimensions.8 items having less than .45 factor loading has been removed from the scale and the scale has been composed of 24 items. According to principal components analysis, before applying varimax (vertical) rotation method to the data obtained, first factor’s solely described variance value has been found as 37,186 %.

**Table 3:** Total Variance Explained,( Extraction Method: Principal Component Analysis.)

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	8,925	37,186	37,186	8,925	37,186	37,186	4,976	20,732	20,732
2	2,470	10,290	47,476	2,470	10,290	47,476	4,366	18,192	38,923
3	1,584	6,602	54,078	1,584	6,602	54,078	3,637	15,155	54,078
4	1,088	4,534	58,612						
5	,985	4,102	62,714						
6	,935	3,895	66,609						
7	,893	3,722	70,330						
8	,736	3,066	73,396						
9	,705	2,938	76,334						
10	,643	2,681	79,015						
11	,572	2,384	81,399						
12	,522	2,175	83,574						
13	,488	2,032	85,607						
14	,466	1,943	87,550						
15	,439	1,830	89,380						
16	,370	1,544	90,924						
17	,346	1,442	92,366						
18	,332	1,383	93,749						
19	,312	1,302	95,051						
20	,291	1,212	96,263						
21	,250	1,043	97,306						
22	,235	,979	98,285						
23	,220	,917	99,202						
24	,192	,798	100,000						

As well as there are strong evidence that the scale is one dimensional it has been decided to use varimax (vertical) rotation method by looking at the structures of the items. At the end of the process it has been seen that eigenvalue of 24 items analysed have been gathered around three factors. It has been seen that first factor alone explained the 37,186% of the total variance; the second factor 10.290%, third factor explained 6.602%, total of three factors explained 54,078% of the total variance. It is observed that the common variance of three factors described about the items vary between .513 and .792.

**Table 4:** Rotated Component Matrix<sup>a</sup>

	Component		
	1	2	3
M16	,792		
M17	,790		
M15	,751		
M6	,745		
M4	,740		
M9	,646		
M5	,590		
M1	,545		
M2	,513		
M29		,794	
M30		,771	
M28		,668	
M13		,634	
M27		,634	
M23		,567	
M7		,553	
M8		,525	
M26		,514	
M31			,754
M21			,735
M25			,699
M19			,628
M18			,580
M20			,558

Extraction Method: Principal Component Analysis.

Rotation Method: Varimax with Kaiser

Normalization.<sup>a</sup>

a. Rotation converged in 5 iterations.

Besides; the mean, standart deviation, item-total correlations of the Gazi Faculty of Education Students' Attitudes towards Their Departments Attitude Scale have also been computed and determined that for all the items in the scale item-total correlations vary between .43 and .71 and t-values have been meaningful ( $P < .001$ ). Taken into consideration that items having item-total correlation more than .30 can distinguish individuals well (Büyüköztürk, 2005) it can be said that the reliabilities of the items in the scale are high and intended to measure the same behaviour. Item-total correlations for every subfactor in the scale vary as; between .48 and .63 for factor 1; between .43 and .71 for factor 2 and between .47 and .59 for factor 3. According to these values, each item discriminates the attitudes of Gazi Educational Faculty Students' Attitudes towards their Department/Program. Values obtained from the analysis during the development of the scale are given in table 5, 6 and 7.

In the Gazi Faculty of Education Students' Attitudes towards Their Departments attitude scale adaptation study, first factor (finding the department functional) of the scale has been composed of items 1, 2, 4, 5, 6, 9, 15, 16, 17; items 7, 8, 13, 23, 26, 27, 28, 29, 30 in the second factor (being pleased with the department); items 18, 19, 20, 21, 25, 31 in the third factor (appreciating the department). Items in the scale have been composed of 18 positive, 6 negative items.

**Table 5:** Validity-Reliability Analysis Results of Gazi Faculty of Education Students' Attitudes towards Their Departments

Items and Factors	Mean	Standard Deviation	Communality Common Variance	Compenet Factor Load	Varimax Factor Load	Item Total Correlations	t value
<b>Factor I. Finding the Department Functional</b>							
1. Faculty is in accordance with my expectations that were before my registration.	2,71	1,18	,477	,672	,513	,62	14,110
2. My department/program is in accordance with my expectations that were before my registration.	2,88	1,20	,458	,665	,545	,61	14,405
4. The curricula of our department/program provide the skills needed for teaching profession.	3,11	1,10	,580	,601	,740	,54	11,752
5. The competencies of staff members are in accordance with my professional expectations.	3,33	1,00	,472	,573	,590	,52	10,225
6. The curricula are in accordance with my professional expectations.	2,92	1,03	,604	,637	,745	,58	13,248
9. Applied studies related with the field in our department/program are sufficient.	2,77	1,18	,447	,537	,646	,48	10,531
15. I think that the content of the courses in our department/program are appropriate to the current professional developments.	3,22	1,10	,578	,545	,751	,48	10,036
16. I think that the curriculum of our department/program is functional.	3,13	1,00	,694	,692	,792	,63	15,229
17. The curriculum of our department/program is aimed at meeting our professional needs.	3,24	1,03	,648	,613	,790	,55	12,198
<b>Factor II. Being Pleased with the Department</b>							
7. I fondly attend our department/program.	3,14	1,22	,590	,757	,553	,71	18,612
8. I fondly participate in all social activities in our department/program.	2,75	1,19	,376	,566	,525	,52	11,539
13. I am very happy for studying in this department/program.	3,12	1,20	,606	,739	,634	,69	15,845
23. I become happy when I participate in applied activities in our department/program.	3,34	1,11	,478	,569	,567	,53	9,687
26. I enjoy attending theoretical courses in the department/program.	3,02	1,16	,309	,475	,514	,43	7,982
27. I enjoy participating in applied courses in our department/program.	3,33	1,15	,556	,620	,634	,58	10,814
28. Courses in our department/program are interesting for me.	3,12	1,09	,642	,752	,668	,71	16,490
29. I like reading publications about our department/program.	3,37	1,09	,643	,562	,794	,51	9,081
30. I like following the scientific meetings about our department/program.	3,19	1,12	,605	,522	,771	,47	8,242
<b>Factor III. Appreciating the Department</b>							
18. I find my department/program very boring.	3,41	1,26	,468	,579	,580	,54	10,848
19. I find the courses in our department/program nonsense and useless.	3,49	1,17	,527	,634	,628	,59	12,236
20. I am not fond of the teaching activities in our department/program.	3,17	1,18	,483	,641	,558	,59	12,654
21. I find the behaviors of the staff members towards us negative.	3,27	1,23	,573	,527	,735	,49	9,944
25. I feel unhappy while preparing for the practical courses in our department/program.	3,33	1,25	,571	,536	,699	,50	10,023
31. I am not fond of the staff members in our department/program.	3,25	1,22	,592	,508	,754	,47	9,578

**Table 6:** Gazi Educational Faculty Students' Attitudes towards Their Departments Attitude Scale Variance explained by the Subfactors and Alpha Coefficients

Factor	Variance Explained	Alpha
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<b>Factor 1</b>	% 37,186	,87
<b>Factor 2</b>	% 10.290	,87
<b>Factor 3</b>	% 6.602	,82
<b>Total</b>	% 54,078	.908

Table 6 presents variance explained by each factor which are respectively 237.186%, 10.290%, 6.602% and the total is 54.078%. Alpha coefficient for the I. factor was computed as .87, the same coefficient for the II. Factor was .87 and computed as .82 for the III. Factor.

Total alpha value of the scale is .90. When the evaluation criteria for alpha coefficient is examined (if it is  $0.80 \leq \alpha \leq 1.00$  then the scale is highly reliable; Özdamar, 1999:522) it can be said that the scale has highly reliability.

**Table 7:** Gazi Educational Faculty Students' Attitudes towards Their Departments Attitude Scale Correlation Table

Factors	N	X	Ss	Min	Max	Fak1	Fak2	Fak3
<b>Factor 1</b>	340	27,35	7,10	9,00	43,00	----	,48**	,83**
<b>Factor 2</b>	340	28,43	7,36	9,00	45,00	----	---	,61**
<b>Factor 3</b>	340	19,95	5,36	6,00	30,00	----	---	---

\*\*p<.01

Table 7 shows the correlation coefficients of Gazi University Gazi Faculty of Education Students' Attitudes towards Their Departments attitude scale. It is seen from the table that the correlation between the first and the second factor is .48, between the first and the third factor .83 and finally the correlation between the second and the third factor is .61. It is observed that there is a meaningful and medium and high level relationship among the factors. These data could be thought as evidence that attitude items in the scale are gathered in three independent factors.

### 3. Results

In this study in order to determine the attitudes of Gazi Faculty of Education students towards their departments, development (adaptation) of a valid and reliable measurement tool has been aimed.

After the application of the 32-item scale to 340 students and the analysis thereafter 8 items has been removed and the final scale has been composed of a total of 24 items 18 of which positive, 6 of which are negative. It has been seen that these items reflected the three basic structures (finding the department functional, being pleased with the department and appreciating the department) of the students' departments which has been taken into consideration during the preparation of the scale.

With its current form "Educational Faculty Students' Attitudes Towards Their Departments Attitude Scale" after the reliability and validity analysis has been accepted as a reliable and valid three dimension measurement tool measuring novice teachers' attitudes towards teaching profession. It can be concluded from the reliability evidence of the scale that Attitude Scale of Gazi Faculty of Education Students towards Their Departments/Programs could be trustfully used to measure the attitudes of Gazi Faculty of Education students towards their departments.

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