

Full Length Research Paper

High school students' attitudes towards geography and the questions they wonder about

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Four hundred and five students were involved in this survey in order to determine the general attitudes of high school students towards geography. The only aim of this study is not to determine the place of geography lesson among other courses but to find out the reasons why students have positive or negative attitudes towards it. The results of the research suggest that geography is ranked fourth among the most favorable courses. Of course, there are many factors that make this lesson one of the most favorite. From the answers to the open-ended questions, it can be concluded that students' positive opinions about their teachers is the most effective factor that increase students' interest in the lesson.

Key words: Attitude, teaching geography, high school education, geography lesson, student.

INTRODUCTION

Student is one of the elements that are indispensable to education. Every student, in the process of education, is an individual, so they must be treated as individuals. The individuals with different biological structures, who come from various environments, naturally have different points of view about events, and they comment on them differently. These differences result from various factors such as their past experiences, their interests and abilities, and the way they learn etc. (Açıkgöz, 2003). One of the major characteristics of modern education is that it is student-centered. In this system, students are placed in the center of education so that they become the principal focus of attention. John Dewey, who had an important part in the adoption of this method, developed the principle of "child-centered education" (Büyükkaragöz, 1997). As is clear from the explanations, students' physical (abilities, etc.) and social traits (expectations from education, past experiences etc.) are some of the most effective elements in education. These features are quite effective on the kind of attitude that a student takes to a particular lesson. However, a student's attitude towards a lesson is not only connected with his/her personality traits. Teachers' qualifications (such as their knowledge of the field and method) are also important in this sense. Before the establishment of students' attitudes towards geography lesson in higher education institutions, it is necessary that answers are

sorted to the following questions: What does attitude mean as a concept? How can it be measured?

Attitude, in a broad sense, means somebody's tendency to react to any event or object in his/her environment. In other words, attitude can be defined as an individual's possible behaviors in a situation, occasion or towards any phenomena (İnceoğlu, 2004). From this point of view, it is quite natural that science of behavior deals with 'attitude' as one of key concepts. Investigations and inquiries about attitudes are not confined only to the science of behavior such as psychology or social psychology. In many other fields, within the frame of social sciences such as politics, economy, history, geography, etc., examination of attitudes is given as a good deal of importance.

As attitudes have no physical dimension, in other words, as they are abstract concepts, it is rather difficult to measure them, which means it cannot be measured directly. When people are asked about their opinion of any object or their attitude towards any topic, they usually fail to respond to it accurately and make some superficial and inaccurate statements instead (Tavşancıl, 2005). Despite all these difficulties, it is possible to measure students' attitudes towards lessons by the methods and techniques such as question lists, observation, incomplete sentences, telling stories, choosing the wrong answer and text analysis. As it is clear from Eren's study

Table 1. Distribution of the students according to the kind of schools they attend.

Type of school	Frequency	(%)
High school	250	61.7
Vocational high school	86	21.2
Anatolian high school	69	17

(2001), observation of students' behavior and the questions students ask about any topic are the two important methods to be followed in order to measure attitudes. However, the former (that is, observation of behavior) is time consuming and a very difficult task to carry out. For that reason, mostly, the latter (that is, students' statements about a lesson or a topic) is taken into account.

Attitude scale, as a method which is chosen, is most commonly used to measure attitudes. While measuring attitude, a list of sentences related to the event and object which are the subjects of investigation is prepared and students are asked to answer these questions in line with their real thoughts. The result must reflect whether they are mostly in favor of the event or object or against it.

Many great studies about teaching geography also include students' attitudes towards geography lessons. The aim of these studies was to discover how the students' attitude towards geography lesson change based on the method used. Likert type attitude scales were used in these studies.

A research by Güven (2006) named "A study to develop a scale for measuring attitudes toward high school geography course" is the first and most comprehensive study about preparing an attitude scale for geography lesson in Turkey. This scale includes a total of 39 items; 22 positive and 17 negative.

The aim of the study

The main objective of this study is to find out to what extent high school students are interested in geography lesson compared to other courses they take, and to search for the reasons why students have both positive and negative attitudes towards this lesson. It is also among other objectives of this study to find out what school they attend and the major behaviours that are effective in their attitudes towards geography lessons.

THE METHOD OF RESEARCH

The study's sample consists of 405 students from seven different high schools in Samsun. The students in question come from different schools, classes and fields. Such a sample was chosen owing to two major aims; (1) to increase the accuracy of the predictions (assessments) related to the students in question, (2) to provide for the adequate representation of students from different schools and classes (Arıkan, 1995). Of all the students,

61.7% are from high schools, 21.2% from vocational schools and 17% from Anatolian high schools (Table 1). Also, of these students, 64.9% are ninth year students and 35.1% are eleventh year students (Table 2). As to the distribution of the eleventh grades according to their majors, 62.2% of them are from Social Sciences Department and 33.8% are from Science Department.

Means of collecting data

In order to measure high school students' interests in geography and other major courses, a means of collecting data which had four Likerts; "I like very much", "I like", "I like a little" and "I do not like" was used. Also, open-ended questions such as; "Why do you like the lesson?", "Why do you not like the lesson?" and "What do you want to know about geography?" were prepared.

Evaluation of the data

The SPSS (in the process of the evaluation of the data) program was used to evaluate the data. The survey shows (indicates) the percentages and frequencies of the students' ideas about geography lesson and the other courses.

One way variance analysis method was used in order to find out if there was a significant difference among students in terms of their ideas about geography according to the kind of schools they attend. LSD method was used to establish between which groups the difference was. Besides, in order to determine whether there is a significant difference among the students' opinions about geography, according to their fields of study, an independent t- test was administered.

FINDINGS AND COMMENTS

According to the results of the research, theology is the lesson that the students like best. The rate of the students who marked either "I like it very much" or "I like it" is 90.1% (Table 3). Literature is the second lesson that the students like best after theology. About 78% of the students marked either "I like it very much" or "I like it". Physical Education follows literature, being the third that the students like best. Out of ten lessons, geography is the fourth lesson that the students like best. About 77.8% of the students marked either "I like it very much" or "I like it". Physics is the lesson that the students liked the least. Totally, 41.7% of the students marked "I like it very much" or "I like it", which is very low.

Chemistry is the lesson that students like best among the science courses. The fact that the rate of students, who like philosophy very much among social science courses is low, causes anxiety.

As it is clear from the explanations, majority of the students ticked the Likert "I like it", but this result differs considerably according to the kind of school (Table 4). The difference is between the opinions of the students from high school and vocational high schools, and the students from Anatolian high schools and vocational high schools.

Table 4 shows that the rate of vocational high school students who like geography course very much or who like it is 81.4%, whereas, the rate is 74% for high school students and 68.1% for Anatolian high school students (Table 5). It is also interesting that the rate of students who do not like geography among Anatolian high school students, compared with other types of schools, is high. The fact that Anatolian high school students have a general tendency to be good at science courses accounts for the low rate of interest in geography in these schools compared to other schools. The reason why students in vocational high schools are more interested in geography may be due to the fact that students with poor level of education generally attend such schools, so that they

Table 2. Distribution of the students according to the classes.

Class	Ninth year		Eleventh year	
	Frequency	(%)	Frequency	(%)
The number of students	263	64.9	142	35.1

Table 3. High school students' ideas about geography and other courses.

Courses	I like very much	I like	I like a little	I do not like
	(%)	(%)	(%)	(%)
Geography	30.2	45	17.6	7.3
Literature	36.2	42.3	15.8	5.8
Theology	55.2	34.9	7.7	2.3
History	36	34.9	22.2	6.9
Mathematics	27.4	27.9	24.1	20.6
Physics	17.2	24.5	30.7	27.6
Chemistry	20.1	39.4	28.2	12.4
Biology	20	35	32.7	12.3
Philosophy	16.2	28.6	22.9	32.4
Foreign Language	27.7	33.6	25.8	12.9
Physical Education	62.9	14.9	13.7	8.5

Table 4. One way output of the opinions of students about geography course according to the type of school.

Basis of variance	Sum of squares	df	Mean square	F	Sig.
Between groups	5.055	2	2.528	3.343	0.037
Within groups	195.849	259	0.756		
Total	200.905	261			

Table 5. Students' ideas about geography course according to the kinds of schools they attend.

Type of school	I like very much	I like	I like a little	I do not like
	(%)	(%)	(%)	(%)
High school	23.1	50.9	20.4	5.6
Vocational high school	39.5	41.9	12.8	4.7
Anatolian high school	29	39.1	18.8	13

Table 6. Results of independent samples t-test connected with students' ideas about geography lesson according to their fields of study.

Groups	N	\bar{x}	S	sd	t	p
Social science	93	3.11	0.77	136	7.41	0.000

are inclined to prefer the lessons that cover social sciences, which they think are easier to succeed.

Students' ideas about geography course differ significantly according to their fields of study (Table 6). It is observed that

students studying social science ($\bar{x} = 3.11$) are more interested in geography lesson than the ones studying science ($\bar{x} = 1.98$).

Students studying social sciences generally have a tendency to be more successful in the courses covering the topics which are concerned with their fields of study. So, it is quite natural that these students are more interested in geography courses than the students studying science. When the total rate of students who like geography very much or who like it is considered, it comes second to theology, which the students like best (Table 7). Doing the questions about geography at university entrance exams would not contribute anything to the students studying science. As a result, students of science are not so much interested in geography lesson, because it would bring them no advantage in passing university entrance examination.

Table 7. The ideas of the students, who are studying “science” and “social sciences”, about geography and other courses (%).

Courses	I like very much		I like		I like a little		I do not like	
	Social science	Science	Social science	Science	Social science	Science	Social science	Science
Geography	32.3	8.9	49.5	17.8	15.1	35.6	3.2	37.8
Literature	26.1	17	39.1	46.8	29.3	23.4	5.4	12.8
Theology	39.4	23.4	48.9	55.3	8.5	14.9	3.2	6.4
History	42.4	17.4	37	43.5	18.5	30.4	2.2	8.7
Mathematics	14.6	46.8	14.6	42.6	29.2	10.6	41.6	-
Physics	1.2	23.4	4.7	42.6	20	19.1	74.1	14.9
Chemistry	1.2	46.8	7.1	34	17.6	12.8	74.1	6.4
Biology	1.2	27.7	13.3	31.9	25.3	19.1	60.2	21.3
Philosophy	12.9	14.9	33.3	19.1	28	29.8	25.8	36.2
Foreign language	13.6	17.8	22.2	17.8	28.4	22.2	35.8	42.2
Physical education	43.8	50	27	30.4	18	10.9	11.2	8.7

In conclusion, geography is a lesson that students like. According to the students' responses to the open-ended questions in the survey, the study can list the factors which make the students like the lesson from the most to the least important as follows:

1. The students like their teachers.
2. It is a lesson that helps students solve the problems that they encounter in their daily life; that is to say, it is a lesson that is closely connected with daily life.
3. It helps them learn both about the places they are living in and the environment around them.
4. It adds to the general knowledge of students.
5. It enables students learn about Turkey.
6. The topics are easy to learn, interesting and arouse curiosity.
7. The lessons are enjoyable and entertaining.
8. It helps students know the world they live in.
9. Students get knowledge about natural events (thanks to it) and comment on them. As a student states it, “I know how earthquake occurs and where the fault lines lie, which help me to know the suitable places for building houses”.

As it can be understood from the above items, the most important factor that make students like the lesson is their positive ideas about their teachers. It is not only because teachers have a good command of their fields and know various methods to be used in the classroom that cause students to form this opinion. Teachers' effective communication with their students is also important in this sense. Effective communication requires social skills. Although, social skills are important for everybody, they are more important for people in some professions, one of which is teaching profession (Yüksel, 2001).

On the other hand, the rate of students who like geography a little or who do not like it at all cannot be underestimated. Considering the answers to the open-ended question, the study can make a list of reasons why students do not like geography course in order of importance.

Students regard it as a lesson which requires memorizing and include a lot of unimportant knowledge:

1. They do not like their teachers and find their teaching methods boring.
2. They find the lesson boring.
3. The fact that some students have some ideas such as; “It does not interest me because it is within the scope of social sciences”, “I

do not have the skill to deal with social sciences” and “it has nothing to do with the profession I will choose”.

4. Students are not successful in these lessons.
5. They think that it has nothing to do with their daily lives.
6. Geography lessons occupy the last hours of their daily lesson programs.
7. Some students have difficulty in understanding the subjects such as parallels of latitude, meridian, moist, pressure, which are abstract; and local time, map scale and map, which require calculation.

These items suggest that the reason why some students do not like geography course is that they see it as a lesson that must be learnt by heart. In order to change/clean up this image of geography, in place of presentation methods based on teachers' lecturing the subjects, some other methods involving student's participation in the lessons must be introduced. In fact, a geography lesson without any equipment and materials (that is to say, it is based on only lecturing) will begin to be regarded as a lesson which requires learning names of mountains, villages, rivers and the capitals of different countries by heart (Taşlı, 1997). As Efe stated, geography is a branch of science which is based on practice rather than theory. For that reason, the topics must be taught by visiting the places in question or by bringing the place into the classroom, which can be done by taking some materials such as films, photographs, maps etc..., into the classroom (Efe, 1996). The problem of lack of excursions, as Ardel stated in 1960s related geography education at high schools and universities, has not been solved in high schools yet (Ardel, 1966). Geography, as Mr. Şahin pointed out, is not a lesson that can be learnt by memorizing human and physical geography about the whole world or a continent or only one country. When necessary, of course, students can be provided with this information (Şahin, 2001). Geography is a science of analysis. So, to prevent students from learning this lesson by heart, it is necessary that this characteristic of the lesson be used.

Another important factor that makes students dislike the lesson is that they find the way their teachers teach the lesson to be very boring. The majority of geography teachers teaches either through lectures or use question-answer method intensively in their courses (Tomal, 2004). They do not know contemporary teaching methods such as cooperative learning, project method, etc.

According to the results of the survey, it has been observed that some students had difficulty in understanding subjects which

include abstract concepts such as meridian, parallel, moist, pressure, etc. It is really difficult for geography teachers to explain the geographical features which are invisible (for example, moist) or imaginary (for example, meridian). To enable the students understand such abstract concepts, it is absolutely necessary to use some figures and models as materials or carry out some experiments.

As this study aims to discover high school students' points of view on geography lesson, in order to find out what topics the students are mostly concerned with, the question was included in the survey, "Are there any questions that you wonder about in geography?" If your answer is "yes", please write them down.

According to the answers to these questions, the questions students are concerned with are as follows:

1. What causes the climate changes in recent years?
2. What will the negative consequences of global warming be?
3. What causes global warming?
4. How long will it take for the glaciers in the poles to melt completely? When will Turkey face this danger?
5. Are there any countries except Holland that take precautions against the rise of sea level as a result of melting glaciers?
6. Are the glaciers in the poles still melting?
7. Is it not possible to use animations in geography lessons?
8. What precautions have been taken so far in order to prevent holes in the ozone layer?
9. Why are excursions not arranged for geography lessons?
10. Why is it not emphasized that geography has a lot to do with human daily life?
11. Is it not possible to do different activities other than lecturing?
12. How can one comprehend the subjects about the world (its shape, movements, latitude and longitude, etc.)?
13. How can teachers and some students keep the names of countries and their characteristic features in their minds?
14. Is it not possible to ask questions, the answers to which require judgment rather than memorizing?
15. What is the Bermuda Triangle?
16. If Magma is the centre of the Earth, why does it not harm the Earth?
17. How does rainbow occur?
18. Will the Earth lose its earth heat? If so, what happens?
19. Why do the Earth and the other celestial bodies not go out of their orbits?
20. Why is the Earth round?
21. What are the peculiarities and beauties of Turkey's 81 cities?
22. Why is the turning of the Earth not noticed?
23. Why do the shape of land and the climate of a region affect people's mood and behavior?
24. Why is it that it generally thunders when it is raining in summer, but it does not thunder so often in winter?
25. Is there life on any planet other than the Earth?
26. Why have many animal species become extinct?
27. Is it true that Turkey and Greece come close to each other every time an earthquake occurs? Is the island Cyprus coming close to Turkey?
28. Will a meteor hit the Earth on 16 May, 2006?
29. According to scientific researches, when will the sea waters rise? Will Bafra (a city where the sample students live) remain under water?
30. It is said that the Hill Nebyan was the only land in and around Bafra in ancient times. Is that true?

RESULTS

According to the results of the research, geography is

the fourth lesson that high school students like best after theology, literature and physical education courses. When only the opinions of the students who are studying social sciences are taken into consideration, it is the second lesson that the students like best after theology. Of course, there are many factors that make students like the course, one of which is that students have a high opinion of their teachers. The fact that geography is a lesson which is closely connected with daily life and which helps students learn the environment they live in are the major factors for the students to like the lesson.

However, the rate of students who like the course a little or who do not like it is not low. The most important reason that the students who do not like geography course put forward is that they see it as a lesson which include a lot of information that must be learnt by heart. Also, some students have low opinion of their teachers, which is another factor that makes students dislike the lesson.

It is quite obvious that high school students are mostly interested in questions about geography which are connected with global warming rather than any other questions. This result suggests that actuality is important in geography courses. The answers to the questions about how geography can be taught better are of considerable interest to the students.

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