

## **An Analytical Research on the Permanence of Knowledge and the Factors Affecting Success in the Cyprus Geography Classes in Middle Schools of Cyprus Turkish Society**

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**Abstract:** The aim of this research is to examine the permanence of knowledge in the Cyprus Geography classes in middle schools of Cyprus' Turkish Society in quality and quantity and to analyse the factors, which are influential in the permanence of this knowledge. In order to be able to understand the problems that the residents of Cyprus' Turkish Society have, especially the young people who confront a great isolation in a world which is becoming a "Global Village", with the concept of globalisation and to be able to find solutions for these problems, we must know firstly about the problem itself and then the origins of it. In the light of this idea, the factors that influence the permanence of knowledge acquired in the Cyprus Geography classes which are held in Cyprus' Turkish Society middle schools have been analysed in this research. Throughout the research the scanning method was used, questionnaires were given while collecting data and interviews were carried out with the teachers and students. Also, students were asked to write compositions on geography lessons and the Cyprus Geography. Taking all the research results into account, although the teaching and learning environments (number of students in classrooms, teaching materials, field trips, students' study environment, etc.) in Cyprus' Turkish Society middle schools were appropriate, it was perceived that the students had a poor knowledge of geography with regard to Cyprus, they did not know their country and the Cyprus Geography classes could not attain its objective.

**Key words:** Cyprus geography . teaching geography . factors affecting success

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### **INTRODUCTION**

One of the primary objectives of the educational foundation program that aims to brace new generations for life is to familiarise individuals with the environment they live in. In the world with a population of over 6 billion, people have very different life standards with regard to their incomes and prosperity levels. Taking the masses of population with high prosperity levels into account in general, it is observed that there is a relationship between the development of a great deal of these masses and the efficient usage of natural resources and human resources they have. In order to be able to use the resources efficiently, it is necessary to know the potential and the problems and this is mostly related to geography. Having rich natural resources does not always bring wealth and prosperity. Some regions in the world are "the regions of collision" or they are dominated by political instability because of their underground resources or strategic locations. Taking everything into consideration, geography lessons are also important to develop social responsibility, harmony with the nature, tolerance and insight towards different values [1].

It is known that teaching the potential and the problems of the environment they live in to the people who live in a region or a country is among the objectives of teaching geography [2]. It is also emphasised that geography and teaching geography is important in order to understand the problems in different regions and to assume a positive attitude towards big and small nations developing closer relations every year [3]. In the light of this, it is known that Cyprus Geography and Cyprus History lessons taught in Cyprus' Turkish Society middle schools have an important part in understanding the problems and finding solutions for them. In this research which was carried out in the light of the notion that in order to be able to understand the problems, one should know the environment one lives in, we will take the opinions of teachers and students about the way Cyprus Geography lessons were taught in Cyprus' Turkish Society middle schools and associate these with the achievement tests given and we will take the permanence of knowledge and the factors affecting success in hand with the help of an analytical approach so that we will be able to discuss and associate the results obtained and the problems experienced.

**Aim of study:** This study was carried out with the third grade middle schools Turkish Cypriot students. The schools apply Turkey's social studies curriculum [4]. Consequently, social studies textbooks which are used in Turkish primary schools are drawn on in Cyprus' Turkish Society middle schools as well. In order to make the second grade Cypriot students in middle schools know their country and learn about its problems and riches, every week for an hour a lesson called Cyprus Geography is taught as a part of social sciences classes. Taking both the time passed after the teaching of Cyprus Geography topics and the island's being a small area as a place to live in into consideration, the level of the third grade middle school Cyprus' Turkish Society students' geographical knowledge of their country and the factors affecting this were tried to be determined. To this effect, the answers to the questions below were sought.

- What are the effects of the in-school and out-of-school factors on the permanence of knowledge?
- Is there a relationship between the students' personal qualities and the permanence of knowledge?
- Is there a relationship between the achievement test results and the teaching techniques?
- Are the objectives of learning geography and Cyprus Geography known by students?
- Is there a relationship between the level of achievement and the school?
- Is there a relationship among the level of achievement and the techniques applied in classes, materials used, field trips and the documentaries watched?
- Is there a relationship between the extra-mural activities and the level of achievement?

**Limits of the study:** The process of gathering data for the study covered the period of 2006-2007 school year. The results of this research is limited to the school year in which it was carried out and the population and sample it was applied to.

## **MATERIALS AND METHODS**

**Research model:** The scanning model was used throughout this research. Personal information forms for students, a questionnaire and an achievement test regarding the ways of teaching were applied in order to collect data. The questionnaire was structured with the contribution of members of Marmara University who work in Atatürk Faculty of Education, Educational Sciences Department and Social Sciences Education

Primary Science Branch. 20 multichoice questions were asked in the achievement test. The questions were chosen from the ones related to the subject asked in the high school entry examination. The questions were also examined by the teachers who gave Cyprus Geography lessons to the third grade middle school students and they were used after necessary corrections were made according to the teachers' feedback for validation and reliability purposes (I would like to thank Cansin Emre who teaches geography in Akdogan Polatpasa High School for helping me with his ideas throughout this research). After the questionnaire and the achievement test in question were given, 6-9 students were chosen from each class in which the research was done taking their achievement levels into account and face to face interviews were carried out with 47 students. Some of the questions from the questionnaire were addressed orally to the students during the interview and collecting information was worked on with the help of different questions asked according to the students' answers. Besides this, the students chosen for the interview were asked to write a composition which could be an answer to "why they had geography and Cyprus Geography lessons, what came to their minds when Cyprus was mentioned." In addition to these, when the students who formed the research sample were in the second grade, the information about the teachers' academic career, their attitudes towards geographic topics, their teaching techniques, classroom materials, homework and field trips was found out by carrying out interviews with the teachers who gave Cyprus Geography lessons.

While the data was being evaluated, it was processed with the help of computer software by uploading the questionnaires onto computers and their frequency distribution and chi-square associations were done (I would like to thank Seyhan HORASAN who spared no effort in uploading data onto computers). The results obtained by means of statistics were associated with the information obtained by means of interviews carried out with the teachers and the students. Besides, the compositions written by the students were made use of. In order to assure the rightness of the results gathered by means of the research, the process of statistical questionnaires was not enough by themselves. So, besides the interviews with the people concerned, some of the questions in the achievement test were analysed and associated with the information obtained by means of other material used in collecting data.

**Population and sample:** The research population included 1060 third grade students studying in 7 different schools (The schools are organised as primary

Table 1: The total number of students and classroom populations in the schools where the research was carried out

School	1	2	3	4
Anafartalar	188	6	31	25
Çanakkale Middle School	145	5	29	30
Özgürlük Middle School	150	5	30	28
Bekirpasa High School, Middle School Division	124	4	31	27
Akdoğan Polatpasa High School, Middle School Division	128	4	32	29
Cumhuriyet High School, Middle School Division	115	4	28	23
Bayraktar Middle School	210	7	30	29
Total	1060	35	30	27

1: Total number of students; 2: Number of classrooms; 3: The average number of students in each class; 4: The number of students in the classrooms in which the questionnaire was applied

education and secondary education in Turkish Republic of Northern Cyprus. Primary education includes grades from 1 to 5. Secondary Education consists of secondary school and high school. Some of the secondary schools are self-contained and some of them are high-school dependent) in Cyprus' Turkish Society (Table 1). The research sample included 191 students who were average on success and chosen from each middle school which constituted 7 classes with a student population changing between 22-31. Busing system is applied in Cyprus' Turkish Society. Consequently, although the schools which the research took place were in the city centers, most of the students came from the country.

### Findings

**Some personal information about the students:** 55% of 191 students who formed the sample were females and the remaining 45% were males. 138 students were 14 years old, 37 were 15 years old, 8 students were 13 and the remaining 8 were 16 years old. With regards to the parents' education, although the ratio of primary school graduate mothers and fathers was similar (36%), the rate of middle school graduates was higher among the fathers (27% of the fathers and 19% of the mothers graduated from middle school.). 36% of the mothers and 21% of the fathers graduated from high school. 12% of the fathers and 5% of the mothers graduated from university.

**The analysis of the achievement test results:** The achievement test was carried out with a total number of 191 students in 7 classes with an average classroom population of 27 students. The achievement test consisted of 20 multichoice questions. The achievement tests were marked out of 100. 5 students scored 70, which was the best mark, in the achievement test (Table 8). 3 students from the middle school division of Geçitkale High School scored 70 while nobody from the middle school division of Anafartalar High School scored over 65. 34 subjects scored around 50-59 and the

Table 2: The distribution of the achievement test scores

Test score gap	%
10-19	6
20-29	21
30-39	22
40-49	23
50-59	18
60-69	7
70-79	3

most successful school at this score gap was Bayraktar Middle School with 12 subjects. 45% of the students got marks ranging from 30 to 49 (Table 2). 28% of the total number of students were the subjects who scored over 50 in the achievement test which was prepared on the basis of the textbook. The least successful schools were the middle school division of Bekirpasa High School with 3 out of 27 students who scored over 50 and Özgürlük Middle School with 4 out of 28 students who scored over 50 while Bayraktar Middle School was the most successful school (Table 8).

The low achievement level in general was noticed. The social sciences curriculum applied in the schools, the textbook, the classroom environment, the teachers' qualifications, discipline problems experienced in the schools each had an affect on this.

**The analysis of the compositions written on "why do we study geography and cyprus geography and what comes to our minds when cyprus is mentioned?":** After the achievement test and the 5-point Likert test, which was developed by the researcher and consisted of personal information forms and questions that would discover the way of teaching was given in the classrooms froming the sample meanwhile explaining the objective of the study, the successful students were chosen according to their low, average or high achievement levels and they were asked to write a composition on which could be an answer to "Why do

we study Cyprus Geography?". It was perceived that some of the students' compositions did not align with the aim of writing (Kerim)

oldu, Hayvanataram yeşillik biçimindedir. Tatlısu  
denizi temiz ve kumsallıdır. Denizlerimizde balık  
çoktur, ~~çok~~ Balığa teknelerle çok çıkarlar en çok  
geceleri çıkarlar. Oradaki insanlardaki insanlarla  
aram çok iyidir. Yeni gelen insanlar gider hoş geldiniz  
denim arkadaş olurum. Daha yeni ~~çok~~ inşaatla başlaya  
nsanlarla da gider konuşurum sohbet ederim, Yardım  
değil insanlara iyilik ve yardım etmeyi çok severim

**Kerim:** Fresh water sea is clean and sandy. There are a lot of fish in our seas. They go fishing on vessels, they mostly go in the nights. I get on well with the people who are in the buildings in there.

whereas some of the students gave answers in alignment with the lesson aims (Mehmet). However, most of the pupils gave little attention to the lesson (see Ezgim's performance in the next page).

Kıbrıs coğrafyasını bize kendi ülkemiz hakkında bilgilendirmek ve  
Nasıl bir yerde yaşadığımızı öğretmek için öğrettiler. Kıbrıs coğrafyasını  
öğrettiler. Bize öğrettiler.

**Mehmet:** Cyprus Geography is taught to us so that we know about our country and learn What (what) kind of place we live in. Cyprus Geography makes the island known to us.

Firstly the students' opinions about why geography was taught and then the responses to "What comes to your mind when Cyprus is mentioned?" will be evaluated in this study.

bakımından gelişmiştir. Kıbrıs üçüncü büyük adadır. Kıbrıs'ta  
tane vva bulunur Bunlar Mesarya Ovası ve Güzelyurt O  
dır. Kıbrıs'ın en yüksek tepesi Karlıdağ'dır. Kuzey  
ris'in en yüksek tepesi Selvi Tepesidir. Kıbrıs'ın doğu  
daki burnu Zafer Burnudur. Batısındaki burnu ise A  
vut Burnudur. Kıbrıs'ta en çok bulunan maden bakır  
Kuzey Kıbrıs Türk Cumhuriyeti'nin nüfusu 200.000. Bz  
nüfus sayımı 1996'da olmuştur. Nüfus sayımı on yıld  
olduğu için bu yıl yine nüfus sayımı olacaktır. Kıbrıs

...Cyprus is the third biggest island. There are two plains in Cyprus. These are the Mesaoria Plain and Güzelyurt Plain. The highest hill in Cyprus is Karlidag. The hishest hill in North Cyprus is Selvili Hill. The cape of Cyprus in the east is Cape Zafer. The one in its west is Cape Arnaouti. The mineral found most in Cyrus is copper. The popi(u)lation of Cyprus' Turkish Society is 200000. This popi(u)lation census was done in 1996 (Ezgin).

It can be said that some of the students gave correct answers according to lesson's aims, as mentioned above in respond to why they studied geography. Although the answers given were not systematical, they were important since they revealed that some of the students understood the message the lesson tried to get across. Here are the examples of the students' answers: "We have geography lessons so that we know about Cyprus and the whole world. If we learn geography, we will have a great knowledge of agriculture. We study geography in order to be able to know the place we live in" (Sevgi (The students' names in the text have been changed)). One of the aims of geographic topics which take place in social sciences classes is not to disturb the natural equilibrium and to leave a world which is worthier to live in to the the new generation by teaching the right way of using the resources besides introducing the world and the environment we live in [5]. One of the students emphasised that geography and therefore the world was related to the future in an appropriate way to this approach: "Let's learn our geography very well, let's stand up against all kinds of difficulty. Because it's not only our geography but also the geography of the future" (Gökhan).

It is possible to see this clearly in the compositions on "What comes to our minds when Cyprus is mentioned?" that the students were made to write in order to supply the results obtained by means of achievement tests. It was understood that 2 out of 47 students digested the knowledge regarding the reasons why Cyprus Geography was taught. Here are the some explanations of a student: "We study Cyprus Geography in order to learn and know the beauties and the underground resources of the country we live in and what kind of country we live in and where it is located" (Aygül). These are things perceived when the answers to "What comes to our minds when Cyprus is mentioned?" are classified in accordance with one another. These can exemplify the fact that Cyprus

covers a relatively small area in the map and where the name of Cyprus originates from: "Everyone knows each other as our island is small (The area of the island of Cyprus is 9251sq km, 3242 sq km of this is in the borders of Northern Cyprus). We learned that although the piece of earth we live in is now called Cyprus it was given this name as the time passed and its name originates from the word Ciprus which means copper" (Gülcan). It was realised that the students did not have a detailed knowledge of the landforms in Cyprus. A few students used expressions about the landforms such as these: "I don't know much about Cyprus. Yet the highest hill in Cyprus is Selvili Hill (A question regarding this hill was asked in the achievement test and also it was analysed since the rate of wrong answers given to this question was high) as far as I heard from my elders" (Gül). Most of the information in the compositions was about the climate. While some of the expressions used in describing the climate were correct in terms of terminology, others were relative and they partly reflected the students' opinions. For example; "I like Cyprus very much although I don't have a detailed knowledge of it. The climate of Cyprus is the Mediterreanean climate. In general, it's not too cold in the wintertime and it doesn't snow. Cyprus is very hot in the summertime and very cold in the wintertime" (Sema). The evaluations regarding human and cultural aspects of Cyprus are also interesting. While a student determined the population of Cyprus' Turkish Society by saying "The population of Cyprus is 2500." (Fatih), another student gave information not only about the population but also about the future (The population amount this student stated must include the whole island of Cyprus. According to the population census done in 2003, the population of South Cyprus was 835000): "I don't believe there will be peace in Cyprus and I don't think its future will be good. More than 1 million people live in Cyprus and to make them have the same point of view is very difficult" (Riza). The touristic potential of Cyprus and the sights to see were listed: "When a tourist comes to Cyprus, I'd like him to see the Salamis Ruins, Kantara, Cape Zafer, Besparmak Mountains, Kyrenia Marina, Nicosia Whirling Dervishes Lodge, Blue Chalet, interior of the city walls in Nicosia and Gazimagusa and beautiful places such as this (these)" (Mehmet). A few students emphasised the location and the strategical importance of Cyprus (Vedat).

Kıbrıs demek Akdenize sahip olmak, geçmişte olan ipok ve baharat ticaretine sahip olmak, bu zamanda Kıbrıs üst olarak kullanıp ota doğuyu kontrol altına almak mümkündür.

**Vedat:** *Cyprus means possessing the Mediterranean, having the trade of silk and spices we had in the past. It is possible to use Cyprus as a base and to rule over the Middle East in this time...*

Also, the statement after this is worth paying attention as it reflects the results of Cyprus's being an island country: "Cyprus is beautiful and desolate. It's a place where there is no war and terror and theft" (Ali).

**The analysis of the data obtained by means of the interviews carried out with the teachers:** Interviews were carried out with the teachers who taught social studies during 2006-2007 school year in the classes and the schools in which the study took place and in order to collect detailed information, the teachers were asked questions according to the answers they gave to predetermined questions regarding their academic career as well as the way of teaching in their classes..

There is nobody assigned to a post of social studies teacher within the middle schools in Cyprus' Turkish society. The geography lessons were taught by a history graduate teacher in the middle school division of Cumhuriyet High School which formed the research sample.

It is understood that the teachers who have history and geography degrees, have no opportunity for in-service training, should have to teach social studies.

The teachers generally used the narration technique in the schools that the research was carried out. It was understood that, though very rarely, the question and answer technique was also used, in order to focus students' attention on the subject [6]. It was perceived that the problem solving technique was not preferred in teaching geographic topics. The teachers were asked "Do you ever teach by presenting topics as problems and asking students to find solutions to these?" When the ones who said "I teach by presenting topics as problems and making students to find solutions." were asked to give an example, only one teacher could give an example which revealed that s/he used this technique.

Using maps and plans in teaching is very useful for people's acquiring knowledge about the places they live in [7]. Besides, direct perception which is formed as a result of combining the interpretation of the photographs and maps helps to improve geographical comprehension by developing the child's self "sense of space" [8]. The teachers stated that they used maps related to the subject in every lesson but they did not use a globe. Maps were brought to classes according to the subjects taught. Some teachers showed the places during the lessons in the map firstly themselves, then they got the students to show them whereas some of them only showed the places on the map themselves.

Maps must be used in order to be able to associate knowledge with the place and to be able to develop a sense of direction [9]. Low achievement level on questions regarding the sense of direction and the association with the place reveals that there are important problems about this issue.

Geography is one of the subjects that information technologies could make a genuine and valuable contribution to. Therefore, it is very important for geography teachers to make use of information technologies in their classes [10]. Although there were maps, which are among geography teaching materials, in the classes formed the sample, there were not any other devices such as OHPs, projectors, televisions and DVD players. Also, it was seen that the computers which were declared to be used by students during classes were teachers' personal computers.

The teachers were asked if they organised field trips and whether they encouraged student participation in these trips. Taking their responses into account, it was perceived that they organised field trips every year regularly and encouraged student participation in these trips. In association with this, the students were asked "Are field trips organised by your school?" and "Do you participate in the field trips organised by your school?" and it was determined that a great number of students (%78) participated in these trips. It was seen that the aim of the field trips organised by schools were to show students around the important historical and natural areas of Cyprus' Turkish Society and to familiarise the students with the country.

**The analysis of the data obtained by means of questionnaires and interviews in association with the level of achievement:** School, classroom environment and out-of-school learning, which influence the permanence of knowledge and the conditions that might affect permanence of learning directly should be revised by comparing the present conditions regarding learning environment with the general level of achievement.

79% of the students read current magazines appropriate to their ages. It was noticed that there were popular culture based magazines among these, besides magazines such as *Bilim Çocuk (science and child)*, *Bilim Teknik (Science and technologie)*, *National Geographic*.

The study environment at home and having necessary materials while studying are significant in terms of success. It was seen that most of the students had rooms of their own and the means to use devices such as computers, DVDs etc., while studying (Table 3). It was noticed that 53% of the students

Table 3: The rate of students' having rooms of their own at home (%)

I have a room.	72
I don't have a room.	28

interviewed had computers for their own use and 56% of these students had access to the internet.

It is known that supplementing in-school training and teaching activities with appropriate materials and using these in classes are very important with respect to the permanence of knowledge [11]. Using materials during lessons helps students draw on more than one sense organ while learning [12] In relation with this, the students were asked whether the libraries they had in their houses was sufficient for lessons. 68% of the students stated that resources such as books and encyclopedias in their houses were enough to be able to do their homework. It was known that some of the students did not go to the library very often and the ones who went to the library preferred out-of-school libraries. When the students were asked whether they went to the library in order to do homework or research, it was seen that 40% answered 'Yes', 26% responded 'Sometimes'.

It was understood that although there were computers, OHPs and similar devices, these were not used very much during class hours. 73% answered 'Never.', when they were asked about the usage of these devices.

Field trips organised by schools and trips went on as a family are very important to strengthen the things learned in the classroom. Trips to natural environments help students recognise geographical features of the place they live in and comprehend the relationship among climate, landforms and flora [13]. It was seen that an important number of students (78%) participated in the field trips, in visits to places that historical events took place and to museums organised by schools.

When associated with field trips, the results of achievement test which was oriented towards testing the identifiability of the place lived in was engrossing. 76% of the students traveled abroad. More than half of these had been to Turkey (57%) and 7% of them had been to England. Also, 79% of the students interviewed traveled abroad. The answers given to the question "Which of the countries below is the furthest to Cyprus?" which took place in the achievement test in relation to this subject were interesting. 54% of the students knew the closest neighbours of Cyprus as the ones among the countries furthest to Cyprus (Table 11). Although no direct relation was established between success and the participation in field trips statistically, the rate of knowing the furthest country to Cyprus among students who said "I know my country." being less than 50% makes it necessary to think carefully about the subject.

It is known that there is a relationship between students' level of achievement at school and lessons and courses they take out of school. The third grade middle school students are expected to take preparation courses oriented towards High Schools of Science, Anatolian High Schools and Private High Schools and lesson consolidation courses. However, it was noticed that the rate of the students who took courses for high school entry examinations and lesson consolidation in our study sample was about 36%. Also, 36% of the students who participated in the interviews attended courses and studies.

It was realised that the students who took courses for high school entry examinations and lesson consolidation were generally more successful. 27 out of 68 students who attended courses and studies were successful while only 24 out of 123 students who did not attend the courses in question were successful (Table 4).

Students have different needs in learning. Therefore, not all students can benefit from the same teaching and learning activities equally. Some students learn by listening to lessons and discussions, some learn by seeing, some learn by reading and some of them learn when the information is presented with various materials [14]. Using teaching materials such as globes, maps and atlases provides opportunity for students to participate more actively in learning activities [15, 16]. In the light of this, below are the results obtained from the question related to the usage of atlases, wall maps and globes in order to determine whether there was a relationship between the achievement test results and the materials used in classes: The rate of subjects that said they rarely used atlases, wall maps and globes and the ones that said they never used these materials was 50%. It was understood that especially globes were used very rarely. There were two reasons for that: lack of globes and the difficulty in using these with crowded groups [17]. It was noticed there is a meaningful relationship between the level of achievement and the usage of wall maps in geography classes [18]. The rate of subjects that responded "Always" (34%) or "Often" (16%) to "Could you find places mentioned in geography lessons in the map?" was only about 50% (Table 5).

In association with this, the rate of subjects that said "Always" or "Often" in response to "Could you show cities in your near surroundings in a wall map?" was only 57%.

It is assumed that various teaching and learning techniques and strategies are essential in order to equalise children's learning needs and opportunities in every class [19]. There is a strong relationship between the permanence of knowledge and teaching techniques

Table 4: The relationship between the level of achievement and attendance on high school entry examination courses and studies

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	9.467 <sup>a</sup>	2	0.009
Likelihood Ratio	9.196	2	0.010
Linear-by-linear Association	6.694	1	0.010
N of Valid Cases	191		

<sup>a</sup> 1 cell (16.7%) have expected count less than 5. The minimum expected count is 3.92

Table 5: The relationship between the level of achievement and the usage of wall maps in classes

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	19.206	8	0.014
Likelihood Ratio	21.749	8	0.005
Linear-by-linear Association	0.026	1	0.872
N of Valid Cases	191		

<sup>a</sup> 6 cell (40.0%) have expected count less than 5. The minimum expected count is 1.27

used in classes. It was understood that the teachers used narration as a technique during the teaching of geography lessons. With respect to this, the rate of subjects that said "Always" or "Often" in response to "Do you study geographic topics by listening to the teacher while s/he is talking?" was 70%. All the teachers stated narration as the technique they used the most which supports above-mentioned statement. Another technique used in teaching geographic topics is the question and answer technique. The rate of subjects that said "The teacher always/often asks questions and we answer." with regard to the usage of question and answer technique during class hours was 56%. It was realised that narration was used more, when narration and question and answer techniques were compared. In spite of this, it was noticed that the level of achievement was higher in the classes where question and answer technique was applied.

Another application used in teaching geography is to get a student to read the subject and to have a discussion on it as a class. The rate of subjects that said "Always" or "Often" in response to the question about this was 58%. The other way also used in teaching geography, is getting students to write the concepts mentioned in the topics. It was perceived that this was applied very frequently. The rate of subjects that said "Always" or "Often" in response to the question regarding the writing of concepts was 66%. Following primary school students' having difficulty in distinguishing important and unimportant information, their developmental characteristics and ages, to make

Table 6: The relationship between the level of achievement and the projects and homework about the geographic topics

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	17.652	8	0.024
Likelihood Ratio	21.063	8	0.007
Linear-by-linear Association	2.219	1	0.136
N of Valid Cases	191		

<sup>a</sup> 6 cell (40.0%) have expected count less than 5. The minimum expected count is 1.27

Table 7: The relationship between the level of achievement and giving examples from the documentaries about the topics mentioned in classes

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	17.228	8	0.028
Likelihood Ratio	19.183	8	0.014
Linear-by-linear Association	2.360	1	0.124
N of Valid Cases	191		

<sup>a</sup> 6 cell (40.0%) have expected count less than 5. The minimum expected count is 1.27

learners write down some concepts and information can be understood [20]. However, turning this into a continuous process and teaching by reading the subject in the textbook and discussing that are applications which should be thought about.

It is important to do research on this topic with regard to the permanence of knowledge. The rate of subjects who said "Always" or "Often" in response to "Do you do projects and similar homework dependent on research about the geographic topics?" was about 44%. Also, it was perceived that 81% of the students in the interview group did homework about geography. It was seen that homework topics were similar, consequently similar topics were given as homework in the schools that formed the sample. The rate of research group subjects who rarely did homework about geography and the ones who never did homework was about 30%. The effective usage of homework could be achieved by putting together information which has various affects on the permanence of knowledge [21]. It was seen that compared to the students who never did homework, the ones who often did homework were more successful (Table 6).

Extracurricular activities and the way students use their spare time are very significant in training and teaching activities. It was realised that the rate of watching documentaries on television in spare time was 50%. Another important point which should be mentioned is the reference to the documentaries seen related to lessons during classes. It was understood that the use of documentaries as examples was very little.

Table 8: The distribution of the level of achievement according to the schools

		Level of achievement						
		0-9	10-19	20-29	30-39	40-49	50-59	60-69
Akdogan Polatpasa High School, Middle School Division	29	1	5	6	8	7	1	1
Anafartalar	25	1	2	5	7	4	5	
Bayraktar Middle School	29			2	5	7	12	3
Bekirpasa High School, Middle School Division	27	1	9	9	5	2		1
Çanakkale Middle School	30	3	7	5	7	4	4	-
Cumhuriyet High School, Middle School Division	23	3	5	6	4	2		3
Özgürlük Middle School	28	3	9	6	6	3	1	
Total	191	12	39	42	44	34	14	5

While "We always (11%)/often (16%) use documentaries as examples during classes." was among the answers, the rate of subjects who said "We rarely (16%)/never (22%) use documentaries as examples during classes." could not be underestimated. It was noticed that there was a direct relationship between the level of achievement and the reference to the documentaries seen related to lessons during classes. For instance; 32 out of 42 students who said "I never talk about documentaries during classes." scored low in the achievement test whereas 8 out of 22 students who said "I always talk about documentaries." and 14 out of the ones who stated that they often talked about documentaries were successful (Tablo 7).

It was seen that there was a direct relationship between the level of achievement and the schools. 50% of Bayraktar Middle School students scored low in the achievement test whereas 30% of them got average scores. In Canbulat Özgürlük Middle School, 25 out of 29 students scored low while only 4 of them got average scores (Table 8 and 9).

**The analysis of the questions in the achievement test in association with the textbook:** Taking the interviews carried out with the teachers and the students, the questionnaires and the compositions written by the students into consideration, it was noticed that general achievement level was low in contrast with the positive picture painted. It is necessary to analyse the information in the Cyprus Geography textbook in association with the questions in order to be able to examine success and the factors affecting the permanence of knowledge. Evaluations were done using the tables formed in the light of selected questions and the answers given to these questions instead of analysing all the achievement test results.

**Textbook:** The longitude difference between Cape Zafer, westernmost point in Cyprus and Cape Arnaouti, easternmost point in Cyprus, is 9°12'.

Table 9: The relationship between the level of achievement and school

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	32.612 <sup>a</sup>	12	0.001
Likelihood Ratio	32.392	12	0.001
Linear-by-linear Association	0.049	1	0.825
N of Valid Cases	191		

<sup>a</sup>. 8. cell (38.1%) have expected count less than 5. The minimum expected count is 1.27

Table 10: The distribution of the answers given to the questions regarding the sense of direction in the achievement test (%)

Cape Zafer	76
Cape Arnaouti	12
Cape Koruçam	10
Cape Dogan	2

**Question:** Which of the below is the westernmost point (cape) in the island of Cyprus?

- a) Cape Zafer
- b) Cape Koruçam
- c) Cape Arnaouti
- d) Cape Dogan

As it can be understood from Table 10, 151 out of 191 students marked Cape Zafer in response to the question above. Cape Town is the **wrong** answer and in fact it is the **easternmost point** of the island. First of all, this reveals that the students' sense of direction **did not develop/was not developed**. Another result that can be drawn from this is that the maps were not used, edge points were not shown in the map or the students did not use wall maps and atlases while the position of Cyprus and its boundaries were taught. The right answer to the question is Cape Arnaouti and it was known by a group of 12% of the students.

**Textbook:** Cyprus is located in the northern hemisphere with a central position in the Old World Continents. Turkey in the north of the island, Syria in the east, Israel, Palestine and Lebanon in the southeast, Egypt in the south are its closest neighbours.

**Question:** Which of the countries below is the furthest to Cyprus?

- a) Palestine                      b) England  
c) Lebanon                        d) Egypt

As it can be seen in Table 11, 54% of the students defined Palestine, Lebanon and Egypt, which are described as the **closest neighbours** in the textbook, as the furthest countries. England was included in the options in order to determine the **selectiveness** of the students to some extent while preparing this question. As a result of Cyprus' special situation, having a long-run relationship with England and the continuity of their relationship with England by the residents of Cyprus' Turkish Society create a relative closeness. Consequently, it is understood that psychological perception and geographic perception do not overlap.

**Textbook:** The mountains which are situated between Geçitköy Gorge and Kyrenia Gorge are called Lapta Mountains. Servili Hill (1023m) which is the highest point in Turkish Republic of Northern Cyprus is on these mountains.

**Question:** On which mountainous group Servili Hill which is the highest point in Cyprus at an altitude of 1023 meter is situated?

- a) Kayalar                        b) Lapta  
c) Besparmak                    d) Kantara

The mountain range which stretches out from east to west nearly parallel to the Mediterranean in the south of Cyprus are called Besparmak Mountains. This mountains are separated from one another by a certain number of gorges. The information about this is given in the textbook. The correct answer of the question which was prepared using the information in the textbook is Lapta. only 24% of the students found the right answer.

**Textbook:** Trodos Mountains which are the most important altitude in Cyprus is a mass that covers a large area in the south of Gemikonagi-Dikelya line. Its highest hill is Karlidag (Olympus) Hill at an altitude of 1951 meter.

**Question:** Which of the below is the highest hill in Cyprus?

- a) Ararat                        b) Kantara  
c) Karlidag                    d) Uludag

Table 11: The distribution of the answers given to the question regarding the neighbours of Cyprus in the achievement test

Countries	%
England	46
Egypt	23
Palestine	21
Lebanon	10

Table 12: The answers given to the question regarding the highest mountain in Cyprus

Mountains	%
Kantara	61
Ararat	18
Karlidag	16
Uludag	5

The highest rate of answers belonging to Besparmak reveals that most of the students could not acquire the **distinctiveness** of this information. 16% of the students knew the right answer to the question. Mount Ararat and Uludag, which were among the distractors, are not Cyprus' Turkish Society. The curriculum and textbooks of Turkish Republic Ministry of Education are used in the schools of Cyprus' Turkish Society. As a consequence of this, geographic topics are taught in social sciences classes in the middle schools. Therefore, while preparing questions, Mount Ararat and Uludag were included as distractors in order to determine both the **control over acquisition of knowledge and its distinctiveness**. 23% of the subjects marked these two answers (Table 12). This situation shows that difference in locality could not be perceived by some of the students.

**Textbook:** The longest river in our country which is born at Trodos Mountains and flows into Gazimagusa Bay is the Kanlidere.

**Question:** Which of the below is the longest river of Northern Cyprus, which is born at Trodos Mountains and flows into Gazimagusa Bay and only flows when it rains a lot?

- a) Yesilirmak River              b) Taslidere  
c) Kanlidere                      d) Çiftlik River

The aim of geography lessons is to familiarise people with the place they live in. Taking this point into consideration, it is essential to know the geographical components of the place one lives in, in general terms. The most important mountains and rivers are among the geographical components, which are needed to be known, besides the general characteristic of the climate

Table 13: The distribution of the answers given to the question regarding the richest mineral in the island of Cyprus

Mines	%
Copper	51
Salt	20
Chrome	17
Asbestos	12

and flora. The awareness of mountains with regard to landforms was mentioned above. %59 of the subjects gave wrong answers to the question regarding the awareness of rivers. The fact that there are no permanent rivers on the island of Cyprus can be counted among the reasons for high percentage of the wrong answers.

One of the aims of teaching Geography is to make people, who live in a country or a region, learn the potential and the problems of the place they live in. In order to understand and solve the problems and to evaluate their potential it is important for people who live in a spatial unit to know how many people live in the same place as theirs. In the light of this, numerical information regarding the last time that a population census was done was asked. 45% of the research group gave the correct answer to this question.

**Textbook:** There are 200587 people in Cyprus' Turkish Society according to the general census done in 15 December 1996.

**Question:** What is the population of Cyprus according to the population census done in 1996?

- a) 180000
- b) 200000
- c) 220000
- d) 250000

**Textbook:** The mines of Cyprus have been run since the old times. Moreover, there is a great closeness between the word copper and "Cyprus" (Copper in Latin: Copper-Kopher). The most important feature of the mines in Cyprus is their high tenor and reserve. Although these mine beds, which are very rich, are situated in Cyprus, they are not operated.

**Question:** Which of the below is the richest one among the minerals found in Cyprus?

- a) Chrome
- b) Asbestos
- c) Salt
- d) Copper

More than 50 % of the right answers were given to the question regarding the minerals in Cyprus (Table 13). Taking the achievement test results into

consideration as a whole, the fact that 92 out of 191 subjects gave the right answer to this question must be mainly related to the information that Cyprus's name originates from copper. Information and expressions supporting this take place in students' compositions about Cyprus.

Also the factors such that copper mines area which was operated in the past was included in the field trips organised by schools and a special harbour was built for copper exportation were influential in copper's being known as the richest mine bed.

### CONCLUSION

Taking the data gathered by means of the questionnaire and the interviews carried out with the teachers and students into consideration without any evaluation, there were a lot of components which would enable success and the realisation of the lesson aims in the schools. The fact that the average number of students in each class was 30, the study environment at home, extracurricular activities such as field trips, library facilities, watching documentaries, etc. could be counted among these components. The overall picture of teaching seemed to be corroborative in contrast with the low achievement test results and this is a significant situation which should be considered at length.

It was noticed that there were problems in associating the environment and the issues taught in the Cyprus Geography classes.

As it was mentioned before, the curriculum of Turkish Republic Ministry of Education is applied in the middle schools of Cyprus' Turkish Society. Discussing and studying the effects of this application regarding the failure revealed as a result of the research arise as an important situation.

According to the data obtained by means of the questionnaire results and the interviews carried out with the students, the students had been nearly everywhere in Cyprus by means of field trips organised either by families or schools. Although an important number of the students interviewed stated that they knew Cyprus, they were not able to associate the information in the textbook with what they learnt while traveling and reflected this in the achievement test and these points should be dwelt upon.

Although the development in science and technology and the scientific studies on education bring student-centred learning in the foreground, the ongoing classroom application of techniques such as narration, dictation and getting students to read the subject in the textbook are important issues which should be discussed. Using techniques which activate students in accordance with the new approaches in teaching should

be promoted. To this effect, teachers should be familiarised with strategies, methods and techniques that modern education require and they should be supplied with information and experience to apply these in a classroom environment through in-service training.

Although there were significant similarities between what the students wrote in the compositions and the questions in the achievement tests, the fact that 137 out of 191 students scored below 50 is among the subjects which should be considered and discussed.

In order to make Cypriots who are subjected to isolation, especially the young people, understand the problems caused by Cyprus' Turkish Society oriented embargos and get them to hold an opinion about producing proper solutions, they should be familiarised with the spatial unit they live in. This study reveals that the group which formed the sample did not know the place they lived in (their country) sufficiently.

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