



Geography Teacher Candidates' Experiences of Field Study in Western Anatolia: A Qualitative Study

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Abstract

The aim of this study is to establish expectations of 5th grade students from Marmara University's Department of Geography Teaching on geographical field study in Western Anatolia. For this reason, a field study trip was organized to Western Anatolia. A survey, which was consisted of open-ended questions, was prepared by experts and it was conducted on students before and after the study. The survey revealed that 32, 2% of the expectations were related to physical geography, 23,1% to human geography and 44,7% to economic geography. The accumulated data were analyzed using descriptive analysis technique. In conclusion, expectations of students were substantially satisfied after field study. After the fieldwork experience, 67,8% of student expectations were fully met, 7,1% of them were partially met, while 25,1% of their expectations were not fulfilled. It was also established that the rate of fulfilled expectations related to economic and human geography was higher than those related to physical geography. The findings were interpreted and suggestions were made concerning the issue.

Key Words

Geographical Field Study, Practical Geography Learning, Student Expectations, Geographic Expedition and Observation.

Geographers build a relationship between human beings and the natural environment. They try to be useful to society and make suggestions to contribute to this relationship. Nature serves as a laboratory for geographers. Economic and human characteristics of the natural environment are thoroughly analyzed. Therefore, they conduct fieldwork which constitutes an essential part of a geographical education. (Açıköz, 2006; Akçay, 2004; Akınoğlu, 2004, 2005; Ballı, 2009; Çalışkan, 2008; Erdem, 2007; Fuller, 2006; Gök & Girgin, 2001; Karakök, 2011; Kayağ, 2009; Korkmaz, 2006;

Özay, 2003; Özkan, 2009; Rudmann, 1994; Tunç, 2006). Because these studies help solidify geographical knowledge. Exploring geographical features in the research environment and analyzing these features are possible only through fieldwork experiences. Horst blocks in geography textbooks turn into the Aydın and Boz mountains; graben blocks turn to the Gediz and Menderes plains. During field studies, students have the opportunity to see how reservoirs constructed on tributaries flowing between horst blocks prevent spate flows from damaging the planted areas and how spate flows are controlled to irrigate these planted areas. Students learn that determining where the fault lines lie in the field study area is not as easy as finding them on maps. A direct observation solidifies the relationship between faults and hot water sources. At the same time, they see these sources and projects that would contribute to the economy. They question the relationship between agricultural products and climate of a certain area chosen as a field for

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study. They have the opportunity to examine soil and vegetation of the area, as well. They make suggestions for future considering the current conditions of the world. They learn how geographical features of an area affect population characteristics there. They try to find out how much effect settlement has on traditional architecture. They discover the potentials of the cities and see how economic activities help cities develop an identity. They have the opportunity to explore planted lands and new agricultural activities and learn how agricultural products of an area have an effect on the economic structure there. They examine the current tourist attractions and question how they contribute to the economy. They discover how ground waters in a calcareous area form travertines and how much they contribute to economic development. They analyze ancient cities, holy structures and symbols of cities and interpret them calling the modern day conditions into mind.

Students find the opportunity to solidify their existing geographical knowledge as mentioned above. Theoretical knowledge transforms into practical knowledge (Fuller, Edmondson, France, Higgitt, & Ratinen, 2006; Scott, Fuller, & Gaskin 2006). Participants learn how to protect themselves from possible environmental damages and how to benefit from the same environment. Students from the geography teaching departments are well aware of the significance of geographical field study in effective learning. This awareness increases their interest in this kind of study. Students develop expectations in tandem with this interest (Girgin, Sever, & Gök 2003). As a matter of fact, the working group that participated in "field study in Western Anatolia," which is the subject of our study, was asked, before the fieldwork, how they could "*sum up their expectations of a field study.*" %81 of the group made statements related to benefits of practical studies. In this context, Participant (P) 10 said, "*Geographers learn by travelling not by listening.*" P8 said, "*Apply what you learned. Learn what you don't know. Search. Come back again years later. This time, you tell so that others learn.*" P12 emphasized "*learning through experience and keeping active what we learned at school,*" while P16 emphasized "*confirming the information we earlier read in a textbook and solidifying what we learn and learning what we don't know through experience, gaining experience.*" P7 said, "*Geography field studies are conducted to learn by experience.*" P2 stated: "*I want my geographical knowledge to be reinforced by travelling, observing and exami-*

ning," and P3 highlighted "*reinforcing knowledge through observations made during field studies and obtain information about many things I have not seen and known.*"

There were many other studies on geographical field studies. The following concepts were used in these researches: field trips, research trips (İzbirak, 1968), field studies, field researches (Doğanay, 1993), trip, travel, excursion, tour, observation and examination (Doğanay, 2002; Garipağaoğlu, 2001), observation trip (Cin, 1999; Demir, 2007; Küçükahmet, 2001), Professional field trips (Girgin et al., 2003), field studies, examination trips (Korkmaz, 2006), fieldworks (Karabağ, 2002). There is a common view that field study is an imperative in geography teaching (Alkış, 2008). The benefits of this method are emphasized in this study. There was no similar study to this one which aimed to detect expectations related to geographical formations in Western Anatolia in the relevant literature

In this context, answers to the following questions were sought:

1. Did the fieldwork experience in Western Anatolia meet expectations of the students from the undergraduate geography teaching department?
2. What are the students' expectations of the fieldwork experience in Western Anatolia?
3. Do the expectations change after the field study trip to Western Anatolia? What is the rate of realization of these expectations?

Method

Model

This study which was prepared with the intention to determine expectations of geographical fieldwork experiences adopts qualitative research method. The reason why this model was preferred is that it provides opportunity to obtain more elaborate data from the students about expectations of geographical fieldwork experience.

Working Group

Working group of this study consisted of 17 5th grade students -- 58,8%male, 41,2% female -- studying at the Geography Teaching Program of the Secondary Social Studies Department in Marmara University's Atatürk Faculty of Education during the 2010-2011 spring term. This group was chosen in accordance with the working group sample.

taining to physical geography of the area that would be studied. 24,4% of these expectations were related to geological and geomorphological features, 24,4% to climatic features, 25,6% to hydrographic features and 25,6% to soil and vegetation cover of the field that would be studied. 90% of the expectations related to geological and geomorphological features of the area to be studied were fully or partially realized after the fieldwork experience. The rate of the fulfilled expectations concerning climatic features was 55%, while this rate was 61,9% in expectations related to hydrographic features and 57,1% in expectations of soil and vegetation cover.

Findings Related to Geological and Geomorphological Characteristics: It was found out that the participants voiced a total of 20 different expectations of geological and geomorphological characteristics of a field study area. They made reference to 28 concepts related to this subject while expressing their expectations. Eight of these references were about “*rock structure of the area*,” four were about “*fault lines*,” two were about coastal landforms such as “*tombolo*, *spit*, *sandbar*,” five were about “*direct observation of geographical formations*,” one was about “*meander*,” while eight were about “*horst and graben blocks*.” After the field study experience, the working group said, 64,3% of the expectations of aforementioned concepts were fully fulfilled, 17,9% were partially fulfilled while 17,9% were never realized.

Findings Related to Climatic Characteristics: The number of expectations – voiced by the working group, prior to the field study – about climatic characteristics of the research field was 20. Thirteen of these expectations were related to the concept of “*climatic characteristic*,” six were about “*change in climate conditions and its effects*,” one was about “*putting theory into practice*” and the other one was about “*wind energy potential*.” After the field study experience, it was found out that 52,4% of the expectations from the aforementioned concepts were fully realized, 4,8% were partially realized, while the remaining 42,9% were not realized.

Findings Related to Hydrographic Characteristics: The number of expectations voiced by the working group prior to the field study about hydrographic characteristics of the research field was 21. Seventeen of these expectations were about “*water sources and rivers*,” seven were about “*lakes*,” four were about “*deltas*,” two were about “*meanders*” and the remaining two were about “*life style*” and “*watershed*.” After the field study experience, 62,5% of the expectations voiced by the participants were fully met, 9,4% were partially met, while 28,1% were not realized.

Findings Related to Soil and Vegetation Characteristics: The number of expectations – voiced by the working group, prior to the field study – of soil and vegetation characteristics of the research field was 22. Eight of these expectations were about “*distribution of plant species*,” five were about “*soil types*,” five were about “*relationship between soil and vegetation*,” two were about “*soil and climatic characteristics*” and the remaining two were about “*soil and climatic characteristics*” and “*putting theoretical knowledge into practice*.” After the field study experience, it was found out that 52,2% of the expectations of aforementioned concepts were fully realized, while the remaining 47,8% were not realized. One of the participants said he/she didn't have any expectations.

Taking all these data into consideration, it is obvious that the rate of fulfilled expectations of geological and geomorphological characteristics in geography is higher than those related to physical geography, since the participants had the opportunity to examine geological and geomorphological structures more closely. Although students were provided theoretical information, their expectations of climatic characteristics were not realized as rainy weather conditions occasionally prevented them from making an observation.

Findings Related to Characteristics of Human Geography

It was found out that 23,1% of the expectations of the working group were pertaining to characteristics in human geography of the area that would be studied. 39% of these expectations were related to population characteristics of the research area, while the remaining 61% were related to settlement characteristics. 69,6% of the expectations from population characteristics were fully realized after the fieldwork experience. The rate of fulfilled expectations related to settlement characteristics was 70,6%, while this rate was 68,4% concerning the settlement characteristics.

Findings Related to Population Characteristics: The participants of the study voiced a total of 23 expectations of population characteristics of the fieldwork area, prior to the fieldwork experience. Seven of these expectations were related to the concept of “*population structure and characteristics*,” five were about “*dialogue with human beings*,” four were about “*cultural characteristics*,” four were about “*distribution of population and underlying factors affecting this distribution*,” four were about “*rural*

Findings Related to Characteristics of Natural and Man-made Touristic Assets: There are a total of 16 expectations in our study with regard to natural and man-made touristic assets. While voicing their expectations, almost everybody highlighted “*touristic assets and their characteristics.*” After the fieldwork trip, 93,8 percent of the participants said their expectations were fully met, while 6,3 percent said theirs were not met.

The students were also asked for opinion on Pamukkale travertines, the Church of the Virgin Mary, the clock tower in İzmir and cities such as Selçuk, Ephesus, Afrodiasias, Acropolis and Hierapolis to support findings related to expectations concerning natural and touristic assets in our research field. The findings are mentioned below.

Findings related to characteristics of natural assets; the Pamukkale travertines: The participants voiced a total of 19 expectations with regard to the Pamukkale travertines before the field trip. Ten of these expectations were related to “*its formation,*” seven were related to “*curiosity about the area,*” three were about “*practicing,*” another was about “*its contribution to the economy*” and another one was about “*its health benefits.*” It was found out after the field trip that all the expectations were fully met.

Findings related to man-made assets; the Church of Virgin Mary, the clock tower in İzmir, Selçuk, Ephesus, Afrodiasias, Acropolis and Hierapolis:

Findings related to the Church of Virgin Mary: Participants voiced 14 expectations with regard to the structural characteristics of the Church of Virgin Mary. While voicing their expectations, almost all the participants highlighted concepts like “obtaining information and being curious to see the structure.” 85,7 percent of the expectations were fully met after the fieldwork experience, 7,1 percent were partially met, whereas 7,1 percent were not met. Two participants said before the fieldwork trip that they did not have any expectations.

Findings related to cities like Selçuk, Ephesus, Afrodiasias, Acropolis and Hierapolis: Participants had a total of 16 expectations concerning Selçuk, Ephesus, Afrodiasias, Acropolis and Hierapolis. The working groups highlighted concepts like “obtaining information, being curiosity and desire to see” while voicing their expectations.

Findings related to the clock tower in İzmir: Participants wrote down a total of 15 expectations with regard to the clock tower in İzmir. They emphasized that they desire to see the tower both because it is “the symbol of İzmir” and they are “curious to see”

it. 93,3 percent of the expectations of the participants were realized after the field study trip. Only one participant said he/she didn't have any expectations related to the clock tower in İzmir.

Considering these qualitative findings related to characteristics of natural and man-made touristic assets, we see that the field study positively affected the students' expectations; because it was found out that only 5 percent of the expectations voiced before the fieldwork trip were not met after the trip.

To sum up, the rate of the fulfilled expectations related to characteristics of touristic assets was higher than those related to characteristics of industrial plants and agricultural areas. This is because the working group was more interested in historic and touristic assets, the researcher thought. Also, it was observed during the fieldwork trip that the participants wanted to spend more time in this kind of places.

Discussion, Conclusion and Suggestions

In this study, which analyzed the students' expectations of the field study trip, it was found out that field studies positively affect expectations of geography, as it was established that fieldwork experience contributes from 18% up to 100% to meet expectations related to economic, physical and human geography of a research field. This finding overlaps with Rudmann's (1994) research results. Rudmann said this kind of field studies “*contribute greatly to students' cognitive skills.*” In a research conducted by Balci (2010b) on geographical trips' effect on geography teaching, he found out that “*there was a significant relationship in the t test in favor of the post-test according to the results of knowledge tests and concluded that score of the post-test was more than the score of the pre-test by 38,1%.*” Doğanay (2002) defined this kind of field studies and trips as “*the most influential method in geographical research and data gathering.*” He also stated that “*making observation in geography is an imperative.*”

The expectation of putting theoretical knowledge into practice – which constituted a great part of expectations related to the working group's fieldwork experience – were met occasionally by 80% and 100%. This result shows parallelism with results found out by Fuller et al. (2006), Kent, Gilbertson, and Hunt (1997), Scott et al. (2006) and Balci (2010a). Fuller put forward that “*field studies contribute greatly to improvement of skills and students who have an opportunity to participate in fieldwork trips are good in applying their skills to other areas*” (2006). Kent et al. emphasized that field

lems in the implementation phase due to unexpected conditions". Such problems concerning the implementation phase are on the agenda of different countries. Kent (1999) draws attention to this point by stating that "while application of geographical expeditions varies from one country to another at the international level, in England, researchers have been studying on how to perform field works and how to integrate them in the curriculum for a long time. In this country, field expeditions have gained more importance as of 1990s and now, they are implemented much more frequently. However, increase in the laws related to the security and the financial problems are accepted as the biggest problems in this regard."

The results of this research which aims to determine expectations of geographical field study are stated below:

It was found out that 67,8% of the expectations of the participants were fully met following the fieldwork experience, 7,1% were partially met, while 25,1 were not met. The rate of fulfilled expectations with regard to characteristics of economic and human geography is higher than those related to characteristics of physical geography. The details of the expectations are listed below:

1. 70 percent of the expectations related to geological and geomorphological characteristics of the area to be studied were fully realized following the field study. The rate of fulfilled expectations was 50 percent with regard to climatic characteristics, 52,4 with regard to hydrographic characteristics and 57,1 percent with regard to vegetation characteristics of the research area.

The working group underscored concepts like "horst and grabens", "rock structure" and "fault lines" while voicing their expectations related to geological and geomorphological characteristics. 70 percent of the expectations related to these concepts were realized following the field study.

While the participants were expressing their expectations with regard to climatic characteristics, they highlighted concepts like "climatic characteristics" and "change in climate conditions and its effects." Half of the expectations related to these concepts were fully realized, while 5 percent were not, following the fieldwork experience.

While voicing their expectations related to hydrographic characteristics, the participants put emphasis on concepts such as "water sources and rivers", "lakes", "meander" and "delta." 52,4% of these expectations were fully met, while 8,5% were partially met.

They laid emphasis on "distribution of plant species", "soil types", "the relationship between soil and vegetation", while talking about their expectations related to soil and vegetation characteristics. 57,1 percent of these expectations were realized following the fieldwork experience.

2. Following the fieldwork experience, it was found out that he rate of fulfilled expectations related to population characteristics was 69,6 percent, it was 70,6 percent considering fulfilled expectations related to settlement characteristics and 68,4 percent considering expectations related to characteristics of the cities.

While expressing their expectations pertaining to population characteristics, the participants underscored concepts like "the population structure" and "the economic structure of population."

They put emphasis on concepts like "housing types" and "the texture of settlements" while they were talking about their expectations related to settlement characteristics.

3. 69,2 percent of expectations related to characteristics of industrial plants were realized after the fieldwork experience. It was 17,6 percent considering fulfilled expectations related to the geothermal power plant in Sarayköy and 65 percent considering expectations related to characteristics of agricultural areas and 93,8 percent considering characteristics of natural and man-made assets. 100 percent of the expectations related to the Pamukkale travertines were realized, while it was 85,7 percent considering expectations related to the Church of the Virgin Mary. The rate of the fulfilled expectations related to the clock tower in İzmir was 93,3 percent.

While voicing their expectations with regard to the characteristics of industrial plants, the participants highlighted concepts like "industrial plants and their distribution" and "economic activities."

They put emphasis on their desire to see the power plant when asked what their expectation was with regard to the power plant in Denizli's Sarayköy district.

Among the expectations related to characteristics of agricultural areas, there were expectations about "cultivated lands" and "agricultural products."

Almost all participants voiced the concept of "touristic assets and their characteristics" while talking about their expectations related to characteristics of natural and man-made assets.

When asked for their opinion on the Pamukkale travertines, the participants expressed their curio-

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