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A COMPARISON OF THE OPINIONS OF THE UNDERGRADUATE STUDENTS' FROM GEOGRAPHY DEPARTMENT AND GEOGRAPHY EDUCATION DEPARTMENT AS REGARDS THEIR FIELD COMPETENCE

Nurcan Demiralp

Gazi University

nurcan@gazi.edu.tr,

ndemiralp@gmail.com

Nurcan DEMİRALP graduated from Gazi University Faculty of Education Geography Teaching Department, got master degree at the same university, completed (PHD) doctorate education at Gazi University Institute of Educational Sciences Geography Teaching Department in 2006. She got TUBITAK scholarship to conduct research in geography education at 2008. She worked as a research scholar at Texas State University-San Marcos, in 2008-2010. She is still working as an associate professor at Gazi University Gazi Faculty of Education, in Ankara, Turkey. She is also member of Turkish Geographical Society. She has several articles published in national and international academic journals. She has coordinated or participated several national and international projects. Her primary research interests focus on the geography education. Her related research interests include geography skills, curriculum development, assessment, and professional development for educator preparation.

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Nurcan DEMİRALP

nurcan@gazi.edu.tr

ndemiralp@gmail.com

Abstract

Turkish Ministry of National Education established special field competencies for secondary education teachers in 2011. Special field competences are field-specific knowledge, skills, and attitudes necessary for effective and productive conduct of teaching profession. The aim of the present article is to compare the opinions of Geography Education Department, and Geography Department students regarding the field knowledge, one of the special field competences of geography teaching. The study was based on survey method aimed to reveal an existing situation. However, face-to-face interviews were conducted with 20 students from the Faculty of Education in order to find the origin of results. The study was performed in the spring semester of 2014-2015 academic year with a total of 160 students from 3rd, 4th, and 5th grades of Geography Education Department and 3rd and 4th grades of Geography Department. Significant differences between the opinions of students were compared by Chi-Square analysis by their educational programs. The expressions of Faculty of Education students suggested that they were competent in 7 out of 13 fields, creating a significant difference. There was no significant difference in the opinions of Geography Department students regarding the geography field competences.

Keywords: special field competences, geography field competences, geography education

1. Introduction

Social events that emerged especially in the last quarter of the twentieth century lead to major global changes and developments throughout the world. Especially the penetration of globalization and information technology into each field of life and that the communication and interaction increased as it has never been experienced throughout the world induced a period of new searches and works in education (Karabağ & Şahin, 2007; İncekara,2007; Öztürk & Eroğlu, 2013). The aforementioned change was reflected to Turkey in the form of commencement of a new period upon rapid use of new technologies and a paradigm change in educational system. In the world, the qualities and characteristics of teachers and students started to be redefined as from the Bologna process. In that process, the teachers and students are expected to be more questioning, creative, and productive. New learning approaches and learning and teaching process that allow application in lectures started to be effectively used and developed in order to realize the said expectations.

The novelties introduced to the geography education included preparation of new geography teaching program (2005), introduction of the criteria as regards the quality and characteristics of the geography teachers that might apply the foregoing program, and determining the special field competences of the geography teachers (2010). Şahin

(2010:130) emphasized the developments in the geography education as follows: "Parallel to the developments, expectations in geography education has taken on new dimension compared to the previous years. Now, geography education is beyond merely conveying certain theoretical knowledge."

Activities towards change in education were launched in four stages in the period spanning from 2002 to 2011. First Stage: preparation of new and comprehensive teaching programs and implementing the same as from 2005. Second stage: Ministry of National Education (MEB) (2006) General Directorate of Teacher Training and Education determined the Teaching Profession General Competences (TEDP). Third Stage: above directorate prepared Teaching Profession General and Special Field Competences in 2008. This stage, which mostly determined the special field competences for the teachers of courses in the primary education, was followed by the fourth stage. Fourth Stage: the above general directorate enforced the special field competences meant for the teachers of secondary education courses in 2011.

While determining the Teacher Competences - Teaching Profession General and Special Field Competences – the MEB (2008) General Directorate of Teacher Training and Education also provided definitions for the related basic terms. Accordingly, **competence** is having the knowledge, skills, and attitudes necessary for fulfilling the tasks specific to the occupational field. Special Field Competences are the field-specific knowledge, skills, and attitudes necessary for effective and productive conduct of teaching profession. Performance Indicator is the set of observable-measurable behaviors that may prove whether the competences have been realized.

The implications of major novelties in the education as accelerated by the early 2000s on geography education are as follows: Geography Course teaching Program (CDÖP) was implemented in 2005, new textbooks were prepared, and special field competences of the geography teachers were determined.

The desired special field competences of the geography teachers have been addressed to and discussed by the geographers before the Ministry of National Education put them on the agenda. The qualities and competences of the geography teachers 2002 were multi-dimensionally assessed during the Geography Assembly held by the Turkish Geography Institution (TCK, 2003). Karabağ (2003: 387) opened the topic to discussion during the Geography Assembly as follows "Quality teacher is the essential condition of a quality education. Such questions as 'What are the responsibilities of geography teachers as regards quality and qualified education,' 'Which education should they receive and which qualities/skills should they acquire in order to acquire those responsibilities' should be taken as a beginning for the quality of today's Turkey and geography teaching and assessed in order to realize a quality education" (Karabağ, 2003:387).

A literature review suggested that there were two very important studies, which provided assessments and recommendations as regards the competence and qualities of geography teachers (Karabağ, 2007; Karakuyu, 2008). Karabağ (2007:271) assessed the occupational responsibilities of geography teachers and addressed to the qualities of geography teachers under four topics: (i) teaching profession and responsibilities, (ii) responsibilities for realizing the objectives of geography education, (iii) responsibilities towards improving occupational skills, and (iv) responsibility of self-assessment. Karakuyu (2008:341) provided a multi-aspect assessment of the knowledge, skills, value, and competences that a geography teacher and especially a geography teacher candidate would need as regards inception and occupational development.

The work and assessment of geographers as regards the qualities of a geography teacher reached to a discrete result in 2011. The "Special Field Competences of Geography Teachers" as introduced by MEB in 2010 was enforced by 2011. The Special Field Competences of Geography Teachers (MEB, 2011) are composed of three domains of competence: (i) field knowledge, (ii) geography education knowledge, and (iv) having geographical values and attitudes. These there domains of competence have 23 fields of competences and a total of 122 performance indicators with respect to the said competences.

The present research would address to geography field knowledge competence, one of the special field competences of the geography teachers. There are 14 competences and a total of 80 performance indicators with respect to the said competence. Nevertheless, the first 13 competences and the 76 associated performance indicators were included in the study. This selection was justified by the consideration that the contents of the said competences and performance indicators expressed the field competences of geography teachers the best. The fourteenth competence included in the field knowledge (ability to use the geographical values of one's location) and four related performance indicators were excluded from the study.

MEB (2011) Head Council of Education and Morality explained the purpose and the intended fields of application of the special field competences as determined for a total of eight fields as follows: "the aforementioned competences gave been deemed to be appropriate for use in pre-service and in-service training, selection of teachers, assessment of work accomplishments, and for self-knowledge and career development provided that they are applied and developed upon updates in line with feedback." When standards for geography teaching was set in the USA, in 1994, it was aimed that those standards would guide the geography teachers about what to teach in each class, in others provide them assistance in in-service training (GESP 1994:237). Petersen, Natoli, & Boehm (1994:208) assessed the current status of geography teaching in the USA and the required measures. One of the recommendations suggested in above study was to improve the performance and competences of the geography teachers.

Studies in the relevant literature as regards special field competences of geography teachers were reviewed. Those studies focused on the assessment of the status of geography teachers as regards competences, attitudes of geography teacher candidates towards teaching profession, problems of and solution recommendations for geography education based on academic staff in charge of educating teachers and lecturing in geography and geography education (Karademir, 2013; Öztürk & Eroğlu, 2013; Sezer, Pınar, &e Yıldırım, 2010; Alım & Bekdemir, 2006; Gökçe, 2006).

A review of studies until today remarkably provided that activity towards determining the field standards for geography was conducted for social sciences teaching. A study by Gençtürk & Akbaş (2013), which aimed to assess the geography field standards of social sciences teachers based on Delphi technique, investigated what should have been the geography field competences of teacher candidates graduated from social sciences teaching department. This was a model study for using the appropriate techniques with an aim to develop and set educational standards of each field for a more effective education and teaching in Turkey.

Literature review suggested that there was insufficient number of studies on geography teacher competences and field competences of geography teacher candidates. Karademir's (2013) study on field knowledge competence of geography teacher candidates can be considered one of the important studies in that respect. However, the said study employed the "Special Field Competences of Geography Teacher Candidates" scale as developed by the researcher was used as the data collection tool of the study. Certain fields of competences and

performance indicators as regards geography teacher competences as enforced by MEB in 2011 were included in the study by Öztürk ve Eroğlu (2013) who investigated the degree said competences were applied and implemented by the teachers.

A review of the above research revealed that the competences for field knowledge included in MEB (2010) Geography Special Field Competences were not investigated and compared based on the opinions of the students attending to geography departments and geography teaching departments. Therefore, there is no data, nor research as regards what the teacher candidates thought about the competences expected from them as geography teachers and as regards which fields they considered themselves competent or not. This situation indicated that studies should have been conducted to determine the contents of higher education teaching programs in order to apply the high school teaching program and realize the objectives of national education.

1.1. Purpose and Importance of the Study

The aim of this study was to compare the opinions of the 3rd, 4th, and 5th grade students of Geography Teaching Department of Gazi Faculty of Education, Gazi University and the 3rd and 4th grade students of Geography Department of Faculty of Languages, History, and Geography, Ankara University as regards their field competence in geography by the type of program they attended. It was aimed to see whether the opinions of the Faculty of Education students and Geography Department students differed by the type of program they attended. The present study investigated the sub-problems below in line with that general purpose:

1. Sub-problem: Is there a difference in the competence level regarding the ability to use geographical methodology between the geography department and geography teaching department students by the type of program they attended to?

2. Sub-problem: Is there a difference in the competence level regarding the ability to make location analysis between the geography department and geography teaching department students by the type of program they attended to?

3. Sub-problem: Is there a difference in the competence level regarding the ability to conduct activities regarding climate between the geography department and geography teaching department students by the type of program they attended to?

4. Sub-problem: Is there a difference in the competence level regarding the ability to understand geographical formations between the geography department and geography teaching department students by the type of program they attended to?

5. Sub-problem: Is there a difference in the competence level regarding the ability to analyze water assets between the geography department and geography teaching department students by the type of program they attended to?

6. Sub-problem: Is there a difference in the competence level regarding the ability to assess soil assets between the geography department and geography teaching department students by the type of program they attended to?

7. Sub-problem: Is there a difference in the competence level regarding the ability to understand the elements of biogeography between the geography department and geography teaching department students by the type of program they attended to?

8. Sub-problem: Is there a difference in the competence level regarding the ability to understand demographic characteristics between the geography department and geography teaching department students by the type of program they attended to?

9. Sub-problem: Is there a difference in the competence level regarding the ability to analyze settlement characteristics between the geography department and geography teaching department students by the type of program they attended to?

10. Sub-problem: Is there a difference in the competence level regarding the ability to assess economic system and processes between the geography department and geography teaching department students by the type of program they attended to?

11. Sub-problem: Is there a difference in the competence level regarding the ability to assess the tourism phenomenon between the geography department and geography teaching department students by the type of program they attended to?

12. Sub-problem: Is there a difference in the competence level regarding the ability to make spatial analysis for the purposes of culture between the geography department and geography teaching department students by the type of program they attended to?

13. Sub-problem: Is there a difference in the competence level regarding the ability to assess natural disasters and environmental problems between the geography department and geography teaching department students by the type of program they attended to?

The research subject was picked on the grounds that there was limited number of studies as regards whether the faculty of education students and non-faculty of education students considered themselves competent as regards field competences, what were their strengths and weaknesses, and the origins of the foregoing. The study also sought answers to "What is the level the faculty of education students and non-faculty of education students considered themselves competent by the type of program they attended to?" and "Is there a significant difference between the degree they considered themselves competent by the items that constitute the field competences."

Another reason for the selection of the research subject was that even though the literature had studies on the field competences of teachers and students in different disciplines and levels, there was limited number of studies in the field of geography.

1.2. Limitations

The present research is limited to the 3rd, 4th, and 5th grade students of Geography Teaching Department of Gazi Faculty of Education, Gazi University and the 3rd and 4th grade students of Geography Department of Faculty of Languages, History, and Geography, Ankara University during the 2014-2015 academic year. The study was limited to a total of 160 students from both universities, who expressed their views on geography special field competences. The data collection tool of the study is limited to the survey developed by the researcher (See, Appendix 1).

2. Method

2.1. Research Model

The research aimed to compare the students from geography department and geography teaching department (faculty of education students and non-faculty of education students) as regards geography teacher field knowledge competence. The study was based on survey method aimed to reveal an existing situation. According to Karasar (2007), survey model is a research approach, aiming to describe a past or present situation as is.

2.2. Study Group

The present study was conducted with a total of 160 students, attending to 3rd, 4th, and 5th grades of Geography Teaching Department of Gazi Faculty of Education, Gazi University

and the 3rd and 4th grades of Geography Department of Faculty of Languages, History, and Geography, Ankara University during the spring semester of 2014-2015 academic year.

The study participants and their demographic characteristics are provided in Table 1.

Table-1 *Frequency and Percentage Distribution of Students' Demographic Characteristics*

	Variable	*f*	%
Sex	Male	97	60.6
	Female	63	39.4
University	Gazi	92	57.5
	Ankara	68	42.5
Total		160	100.0

Table 1 provides the distribution of the demographic characteristics of the students from Gazi University and Ankara University. The number (and percentages) of the male and female students enrolled in the study was 97 (60.6%) and 63 (39.4%) respectively. 92 students (57.5%) attended to Gazi University, while 68 (42.5%) to Ankara University. A total of 160 students (100.0%) provided opinions as regards geography teaching special field competences.

2.3. Data Collection Process

The present study employed the survey based on the Geography Teacher Special Field Competences as developed by the Ministry of National Education in February 2010. The survey was applied to the participants of the research in April-May 2015 to collect the opinions of students attending to geography department and geography teaching department as regards geography field competences. The survey application lasted 35 to 40 minutes for each classroom.

Despite the fact that the research was quantitative, there found a significant difference as a result of the study in favor of the faculty of education students in seven out of 13 fields of competence. The researcher conducted face-to-face interviews to twenty randomly picked 5th grade students attending to Gazi Faculty of Education in order to find the origin of the said difference and get deeper results.

2.4. Data Collection Tool

The present research employed the survey as developed by the researcher for the purpose of data collection. The survey was prepared based on the Geography Teacher Special Field Competences as developed by the General Directorate of Teacher Training and Education of the Ministry of National Education in February 2010. The Geography teacher special field competences as set by the MEB (2010) are composed of three fields of competence. The survey as developed by the researcher focused on "A. Field Knowledge Competences." The field knowledge competence as provided by MEB (2010) is composed of 14 fields of competence and 80 associated performance indicators. Nevertheless, for the purposes of the present study, the survey included 13 fields of competence and 76 associated performance indicators. This selection was justified by the consideration that the contents of the said competences and performance indicators expressed the field competences of geography teachers the best. The field of competence, namely "A.14 Ability to use the geographical values of one's location" and four related performance indicators as provided in the MEB (2010) were excluded from the study. This was based on the concern fact that the students

enrolled in the study might not completely and correctly understand the “geographical value” notion provided in the field of competence A.14, and confuse the same with “value” notion, in the scope of the special field education.

Basic steps in survey development process were followed in the course of survey development (Shaughnessy & Zechmesiter, 1997; Baş, 2003). Accordingly, the aim of the study was determined. First a relevant literature review was made and the related studies were examined in order to determine the purpose. The assistance of the field and measurement specialist academicians were sought to review the items and the general construct of the survey was prepared based on the geography teaching special field competences defined in the MEB General Directorate of Teacher Training and Education, Secondary Education Project (2010) (See, Appendix 1).

A survey based on 5-point Likert scale composed of 76 items was used in the present study. The survey was prepared to obtain the opinions of the students towards their geography field competences in Likert type scale and the answers included five options (I’m very competent, Competent, Moderately Competent, Less Competent, Not Competent At All (See, Appendix, 1).

2.5. Analysis of Data

Table 1 provided the frequency and percentage distributions of the demographic characteristics of the participants. The opinions of students as regards the competences were compared by Chi-square analysis by the type of program they attended for the sub-problems as determined based on the research problem. Percentages based on their groups were used in the comparison for the groups, since the numbers of the students attending to each university were not equal.

3. Findings and Interpretations

3.1. Findings as regards the First Sub-Problem

Is there a difference in the competence level regarding the ability to use geographical methodology between the geography department and geography teaching department students by the type of program they attended to?

Upon a review of the difference in the level the students considered themselves competent as regards the ability to use the geographical methodology by the type of program they attended to (faculty of education students and non-faculty of education students) as provided in Table 1, there was a significant difference of $X^2_{(3)}$ =7,62, p=.048<.05 as regards the item, “A1.4. I can associate the dual structure of geography with nature and human sciences” between the students by the type of program they attended to. The said significant difference was due to the fact that the frequency of considering oneself competent in the ability to associate the dual structure of geography with nature and human sciences was higher in the Gazi University students compared to Ankara University students. There was a significant difference of $X^2_{(4)}$ =13.93, p=.008<.05 in the item, “A1.10. I can visualize the accordingly classified data in the form of tables, graphs, and maps” between the students by the type of program they attended to. The said significant difference was due to the fact that the frequency of considering oneself competent in the ability to visualize the classified data in the form of tables, graphs, and maps was higher in the Gazi University students compared to Ankara University students.

There was no other significant result as regards the items of this domain as provided in Table 1, since the expressions of competence were close to each other for the other items.

Table 1 *Chi-square results as regards the difference between the students' level of competence regarding the ability to use geographical methodology by the type of program they attended to*

Ability to Use Geographical Methodology	Gazi (N=92)	Ankara (N=68)	Chi-square (sd)	P
A1.1. I can explain the historical change and development of geographical science.	35.8% (Competent)	38.3% (Competent)	6,60(5)	.252
A1.2. I can reflect national and international developments in the field of geography to my practice.	34.8% (Competent)	38.2% (Competent)	4.92(4)	.296
A1.3. I can use the basic notions and themes of geographical science.	69.5% (Competent)	66.2% (Competent)	3.30(3)	.348
A1.4. I can associate the dual structure of geography with nature and human sciences.	87.0% (Competent)	76.5% (Competent)	7.62(3)	.0.48*
A1.5. I can make connections between geography and such sciences as meteorology, geology, biology, demographics, economics, sociology, history, physics, politics, chemistry, and hydrology.	72.8% (Competent)	80.9% (Competent)	2.64(4)	.621
A1.6. I can explain the scientists contributed in geographical science and their contributions.	45.7% (Competent)	35.3% (Competent)	6.24(5)	.284
A1.7. I can solve the problems I may encounter by making use of basic geographical notions and themes.	57.6% (Competent)	48.5% (Competent)	9.39(5)	.095
A1.8. I can use the basic data sources of geographical researches.	56.5% (Competent)	55.9% (Competent)	5.60(5)	.347
A1.9. I can classify the data obtained from geographical researches.	69.6% (Competent)	57.3% (Competent)	7.21(5)	.206
A1.10. I can visualize the accordingly classified data in the form of tables, graphs, and maps.	89.2% (Competent)	67.7% (Competent)	13.93(4)	.008*
A1.11. I can interpret the results obtained from geographical questioning stages.	78.2% (Competent)	67.6% (Competent)	2.92(3)	.404
A1.12. I can make use of geographical information systems when explaining geographical topics.	53.2% (Competent)	63.2% (Competent)	4.94(5)	.423

*p<.05

The "dual structure of geography" phrase as provided in the field competence A1.4 meant the basic approach of the geographical science to interpret and describe the nature – human relationship. The objectives, A.9.1, A.9.2, and B. 9.1 as defined in the Geography Course (Grade 9-12) Teaching Program (2005) and Geography Course (Grade 9-12) Teaching Program (2011) are meant to enable students acquiring the said objective. The General Purposes of the Geography Course Teaching Program and the Program Vision (CDÖP, 2005) explained the scope of nature – human relationship and how it would be taught. http://ttkb.meb.gov.tr/www/ogretim-programlari/icerik/72.

There was a significant difference in the fields of competences A.1.4 and A.1.10, in the scope of the "ability to use geographical methodology," between the Gazi University Faculty of Education students and Ankara University Geography department. A review of the curriculum of Gazi University provided that the number of courses directly addressing the interaction between human and nature was higher and that such courses were also taught in an applied form.

Face-to-face interviews were conducted with a total of twenty 5th grade students of Gazi University Faculty of Education in order to find the origin of the above difference. Participants declared that they had more applied activities in the courses, and that especially they were engaged with and improved themselves during the applied activities in the scope of the seminar and project courses (those course are intended for dissertation).

A review of the Gazi Faculty of Education and Faculty of Languages, History, and Geography, would provide that the student opinions also verified the said situation. http://gefcografya.gazi.edu.tr/posts/view/title/cografya-4-yillik-lisans-dersleri-110064?siteUri=gefcografya (Gazi University, Gazi Faculty of Education, geography Teaching Department Curriculum)

http://geography.humanity.ankara.edu.tr/wp-content/uploads/sites/277/2016/02/2015-2016_bahar_program-1.pd (Faculty of Languages, History, and Geography, Geography Department Curriculum)

3.2. Findings as regards the Second Sub-Problem

Is there a difference in the competence level regarding the ability to make location analysis between the geography department and geography teaching department students by the type of program they attended to?

Table 2 *Chi-square Results as regards the Difference Between the Students' Level of Competence regarding the Ability to Make Location Analysis by the Type of Program they Attended to*

Ability to Make Location Analysis	Gazi (N=92)	Ankara (N=68)	Chi-square (sd)	P
A2.1. I can use basic concepts of the coordinate system in defining space.	76.1% (Competent)	60.3% (Competent)	6,43(4)	.169
A2.2. I can make calculations using the coordinate system elements.	70.6% (Competent)	48.5% (Competent)	10.06(4)	.039*
A2.3. I can make deductions as regards countries and regions based on their location characteristics.	82.6% (Competent)	72.1% (Competent)	4.14(4)	.388

A2.4. I can use mapping skills in location analyses.	78.3% (Competent)	61.7% (Competent)	9.10(4)	.049*
A2.5. I can differ location, region, area, and space based on location characteristics.	75.0% (Competent)	64.7% (Competent)	6.59(5)	.253
A2.6. I can make deductions as regards the relationship between countries and regions based on their location characteristics.	73.9% (Competent)	67.7% (Competent)	4.64(4)	.326
A2.7. I can classify countries and regions by scrutinizing the locational relationship of different locations and regions.	73.9% (Competent)	66.2% (Competent)	1.25(3)	.741
A2.8. I can make deductions as regards the location characteristics of Turkey.	83.7% (Competent)	88.2% (Competent)	2.62(3)	.454
A2.9. I can interpret the locational values of Turkey with a view to regional and global relations.	85.8% (Competent)	92.6% (Competent)	1.88(3)	.599

*p<.05

As for the second sub-problem, the Gazi University students considered themselves more competent compared to the Ankara University students, creating a significant difference as regards the items, "A2.2. I can make calculations using the coordinate system elements" and "A2.4. I can use mapping skills in location analyses" in the scope of the geographical field competence of ability to make location analysis. There was no other significant result as regards the items of this domain, since the expressions of competence were close to each other for the other items.

Certain courses included in the undergraduate program of Gazi University might be associated with the fact that Gazi university students considered themselves competent in A.2.2 and A.2.4 competence performance indicators to an extent that created a significant difference. The 3-credit compulsory COĞ113A Mapping Science, 2-credit compulsory COĞ106A Mapping Science and Applications - I, 2-credit elective COĞ333M Elective - II (Geographical Skills – I), and COĞ533M Elective –VI (Geographical Skills – II) as provided in Gazi University Geography Teaching Department might be associated with the fact that the students considered themselves competent. http://gefcografya.gazi.edu.tr/posts/view/title/lisans-dersleri-52326?siteUri=gefcografya. It is because the contents of the above courses meet the performance indicators as regards the competence level of the "ability to make location analysis." It should also be emphasized that the 4–credit compulsory COG130 Cartography and 2-credit compulsory COG440 Locational Analysis courses as provided in the curriculum of the Geography department of the Faculty of Languages, History, and Geography, Ankara University also covered the performance indicator contents of the competence level of the "ability to make location analysis." http://www.dtcf.ankara.edu.tr/files/2014/09/COG2015-2016-GUZ1.pdf.

The competence of Faculty of Education students was significantly different in competences for the items A.2.2 and A.2.4 compared to the other students. The face-to-face interviews to the Faculty of Education students revealed that they took many compulsory

courses on mapping skills and their applications and that they found themselves competent especially due to such courses on Geographical Information Systems and their applications.

A review of the curriculums of both universities suggested that the number of compulsory courses taken by the Gazi University students was higher in the scope of the present field of competence.

3.3. Findings as regards the Third Sub-Problem

Is there a difference in the competence level regarding the ability to conduct activities regarding climate between the geography department and geography teaching department students by the type of program they attended to?

As for the third sub-problem, the Gazi University students considered themselves more competent compared to the Ankara University students, creating a significant difference as regards the items, "A3.1. I can explain the characteristics of climate applying the basic notions" and "A3.2. I can associate the properties of climatic elements and their distribution to other natural processes" in the scope of the geographical field competence of ability to conduct activities regarding climate. There was no other significant result as regards the items of this domain, since the expressions of competence were close to each other for the other items.

A review of the programs of both universities provided that there were courses and activities sufficient to help students with gaining the competence regarding the ability to conduct activities on climate.

Table 3. *Chi-square results as regards the difference between the students' level of competence regarding the ability to conduct activities regarding climate by the type of program they attended to*

Ability to Conduct Activities regarding Climate	**Gazi (N=92)**	**Ankara (N=68)**	**Chi-square (sd)**	**P**
A3.1. I can explain the characteristics of climate applying the basic notions.	80.4% (Competent)	57.4% (Competent)	14.57(4)	.006*
A3.2. I can associate the properties of climatic elements and their distribution to other natural processes.	76.1% (Competent)	55.9% (Competent)	7.65(3)	.047*
A3.3. I can make deductions are regards climatic regions by interpreting climatic data.	71.7% (Competent)	60.3% (Competent)	5.61(4)	.230
A3.4. I can make deductions as regards likely changes by associating the other processes in interaction with climate.	56.5% (Competent)	47.1% (Competent)	5.99(4)	.200
A3.5. I can question the extreme climatic situations.	65.2% (Competent)	69.3% (Competent)	3.72(5)	.590
A3.6 I can question the local – global effects of climatic change.	69.5% (Competent)	72.1% (Competent)	5.98(4)	.201

*p<.05

The competence of Faculty of Education students was significantly different in competences for the items A.3.1 and A.3.2 belonging to the field of competence of the "ability to conduct activities regarding climate" compared to the Ankara University Geography Department students. During the face-to-face interviews to the Faculty of Education students conducted to find the origin of the difference, the students told that higher thinking skills, such as analysis-synthesis, were required for the said field of competence, that their academic success was higher than that of Ankara University students, and that they considered themselves more competent in courses that required higher thinking skills.

It is a fact that Gazi University students needed higher academic success scores in order they can register to the Faculty Education as evidenced by the entrance examinations introduced by ÖSYM. As a reflection of their academic success in entrance examination, the students declared that they considered themselves competent in the said field of competence.

3.4. Findings as regards the Fourth Sub-Problem

Is there a difference in the competence level regarding the ability to understand geographical formations between the geography department and geography teaching department students by the type of program they attended to?

As for the fourth sub-problem, there was no significant difference between the competence consideration of the faculty of education students and non-faculty of education students as regards the geographical field competence of ability to understand geographical formations. In other words the level of competence had similar distributions.

Table 4. *Chi-square results as regards the difference between the students' level of competence regarding the ability to understand geographical formations by the type of program they attended to*

Ability to Understand Geographical Formations	Gazi (N=92)	Ankara (N=68)	Chi-square (sd)	P
A4.1. I can classify the geographical formations by the formation processes.	46.7% (Competent)	42.6% (Competent)	3.28(4)	.513
A4.2. I can explain the geographical formations by applying to related theories and notions.	51.1% (Competent)	41.2% (Competent)	3.25(4)	.517
A4.3. I can associate the formation process of geographical formations with rock characteristics.	46.8% (Competent)	32.4% (Competent)	4.19(4)	.381
A4.4. I can assess geographical formations in terms of change and continuity.	52.2% (Competent)	42.6% (Competent)	4.94(4)	.293

*p<.05

3.5. Findings as regards the Fifth Sub-Problem

Is there a difference in the competence level regarding the ability to analyze water assets between the geography department and geography teaching department students by the type of program they attended to?

Table 5. *Chi-square Results as regards the Difference Between the Students' Level of Competence regarding the Ability to Analyze Water Assets by the Type of Program they Attended to*

Ability to Analyze Water Assets	Gazi (N=92)	Ankara (N=68)	Chi-square (sd)	P
A5.1. I can differentiate water resources by their formation, location, and characteristics.	67.4% (Competent)	47.1% (Competent)	11.26(5)	.046*
A5.2. I can explain the interaction between the water resources and natural and human processes.	79.3% (Competent)	72.1% (Competent)	4.52(4)	.341
A5.3. I can make predictions as regards likely changes in water resources.	70.7% (Competent)	42.7% (Competent)	14.37(4)	.006*
A5.4. I can develop sustainable water management strategies.	54.4% (Competent)	36.7% (Competent)	6.22(5)	.285

*p<,05

As for the fifth sub-problem, the Gazi University students considered themselves more competent compared to the Ankara University students, as provided in Table 5, thus creating a significant difference as regards the items, "A5.1. I can differentiate water resources by their formation, location, and characteristics" and "A5.3. I can make predictions as regards likely changes in water resources" in the scope of the geographical field competence of ability to analyze water assets. There was no other significant result as regards the items of this domain, since the expressions of competence were close to each other for the other items.

Certain courses included in the undergraduate program might be associated with the fact that Gazi university students considered themselves competent in A.5.1 and A.5.3 competence performance indicators to an extent that created a significant difference. 2-credit compulsory COĞ114A Hydrography, and Elective-IV (Basin Management) courses may be associated with the competence consideration of the students. http://gefcografya.gazi.edu.tr/posts/view/title/lisans-dersleri 52326?siteUri=gefcografya.

The competence consideration of Faculty of Education students was significantly different in competences for the items A.5.1 and A.5.3 compared to the geography department students. The interviews to the Faculty of Education students as conducted to find the origin of the said difference revealed that the students considered themselves competent thanks to the applied activities related to the course.

3.6. Findings as regards the Fifth Sub-Problem

Is there a difference in the competence level regarding the ability to assess soil assets between the geography department and geography teaching department students by the type of program they attended to?

Table 6. *Chi-square results as regards the difference between the students' level of competence regarding the ability to assess soil assets by the type of program they attended to*

Ability to Assess Soil Assets	Gazi (N=92)	Ankara (N=68)	Chi-square (sd)	P
A6.1. I can associate the factors effective in soil formation with soil characteristics.	72.8% (Competent)	47.1% (Competent)	12.74(4)	.013*
A6.2. I can classify soils by the formation types.	76.1% (Competent)	55.9% (Competent)	14.89(4)	.005*
A6.3. I can question the factors effective in distribution of different soil types throughout the world.	72.8% (Competent)	63.3% (Competent)	2.57(4)	.633
A6.4. I can criticize the applications intended for proper use of land	72.8% (Competent)	44.1% (Competent)	16.13(4)	.003*
A6.5. I can develop solutions to prevent wrong use of land.	70.6% (Competent)	45.6% (Competent)	14.24(4)	.007*

*p<.05

Table 6 provided that there were no significant difference by variable of the type of program the students attended to as regards the item A6.3 about the geography teaching field competence of the ability to assess the soil assets. As for the other items, the faculty of education students considered themselves competent compared to the geography department students, creating a significant difference.

The Faculty of Education students considered themselves in four out of five A.G fields of competence to an extent creating a significant difference. This might have been associated with the 2-credit compulsory COĞ204 Soil Geography, 2-credit compulsory COĞ404A Soil Geography of Turkey, and 2-credit compulsory COĞ329G Elective – III (Forest Ecology) courses provided in the undergraduate program. http://gefcografya.gazi.edu.tr/posts/view/title/lisans-dersleri-52326?siteUri=gefcografya.

There were significant differences as regards the items, "A.6.1, A.6.2, A.6.4, and A.6.5" on the "ability to assess the soil assets" competence field between the competence consideration of Faculty of Education students and geography department students. Interviews were held with Gazi University students to find the origin of the said difference. Participant said that they took compulsory and elective courses regarding those items, and had the opportunity of reinforcing and detailed learning experience about soil assets during the other physical geography courses.

A review of Gazi Faculty of Education and Faculty of Languages, History, and geography would suggest that the students' opinions verified said situation.

3.7. Findings as regards the Seventh Sub-Problem

Is there a difference in the competence level regarding the ability to understand the elements of biogeography between the geography department and geography teaching department students by the type of program they attended to?

Table 7. *Chi-square results as regards the difference between the students' level of competence regarding the ability to understand the elements of biogeography by the type of program they attended to.*

Ability to Understand the Elements of Biogeography	Gazi (N=92)	Ankara (N=68)	Chi-square (sd)	P
A7.1. I can explain the species and groups of plants taking into consideration the conditions of growth.	56.6% (Competent)	54.4% (Competent)	4.68(5)	.456
A7.2. I can associate the distribution of natural animal groups with life conditions.	53.3% (Competent)	54.4% (Competent)	2.98(5)	.703
A7.3. I can classify plants and animals by various criteria.	48.9% (Competent)	45.5% (Competent)	5.58(5)	.349
A7.4. I can explain the distribution of natural processes applying the biogeographic elements.	43.4% (Competent)	38.2% (Competent)	3.15(5)	.677
A7.5. I can develop strategies to protect endangered species.	47.8% (Competent)	32.4% (Competent)	4.07(5)	.540

*p<.05

Table 7 provided that there was no significant difference between the competence consideration of the faculty of education students and geography department students. In other words no significant result could have been obtained due to similar considerations of competence level.

3.8. Findings as regards the Eighth Sub-Problem

Is there a difference in the competence level regarding the ability to understand demographic characteristics between the geography department and geography teaching department students by the type of program they attended to?

Table 8 provided that there was no significant difference between the competence consideration of the faculty of education students and geography department students. In other words no significant result could have been obtained due to similar considerations of competence level.

3.9. Findings as regards the Ninth Sub-Problem

Is there a difference in the competence level regarding the ability to analyze settlement characteristics between the geography department and geography teaching department students by the type of program they attended to?

Table 9 provided that the faculty off education students considered themselves more competent compared geography department students as regards the item A9.1. There was no other significant result as regards the items of this domain, since the expressions of competence were close to each other for the other items.

Table 8. *Chi-square results as regards the difference between the students' level of competence regarding the ability to understand demographic characteristics by the type of program they attended to.*

Ability to Understand Demographic Characteristics	Gazi (N=92)	Ankara (N=68)	Chi-square (sd)	P
A8.1. I can make deductions by applying related demographic terms.	84.7% (Competent)	86.8% (Competent)	1.97(4)	.742
A8.2. I can interpret demographic data.	88.1% (Competent)	88.2% (Competent)	.975(4)	.914
A8.3. I can associate the causes and effects of demographic distribution and movements.	88.1% (Competent)	89.8% (Competent)	4.42(4)	.353
A8.4. I can make forecasts by associating demographic policies with demographic projections.	82.6% (Competent)	82.4% (Competent)	8.00(5)	.156
A8.5. I can understand different demographic problems by countries.	86.9% (Competent)	86.7% (Competent)	2.73(4)	.604

*p<.05

Table 9. *Chi-square results as regards the difference between the students' level of competence regarding the ability to analyze settlement characteristics by the type of program they attended to*

Ability to Analyze Settlement Characteristics	Gazi (N=92)	Ankara (N=68)	Chi-square (sd)	P
A9.1. I can associate the factors effective in the emergence of settlements with the development process of settlements.	84.8% (Competent)	73.5% (Competent)	11.42(5)	.044*
A9.2. I can classify the settlements by texture, form, and functional properties.	80.5% (Competent)	67.7% (Competent)	5.46(5)	.362
A9.3. I can state what the local, regional, and global effects of settlement may be.	82.6% (Competent)	70.6% (Competent)	10.39(5)	.065
A9.4. I can may predictions as regards the future of settlements considering the factors effective on the settlements.	77.2% (Competent)	64.7% (Competent)	8.83(5)	.116
A9.5. I can interpret time-bound changes in settlements.	81.6% (Competent)	69.2% (Competent)	7.55(5)	.183

*p<.05

Courses provided in the undergraduate program may be associated with the fact that the faculty of education students considered themselves competent as regards the item A.9.1, to

an extent creating a significant difference. The 2-credit compulsory COĞ212A Settlement Geography course might be associated with the fact that they considered themselves competent. http://gefcografya.gazi.edu.tr/posts/view/title/lisans-dersleri-52326?siteUri=gefcografya.

There was a significant difference as regards A.9.1 item, between the competence considerations of faculty of education students and the geography department students. The students of faculty of education were interviewed in order to find the origin of the said difference. The participants said that they took compulsory and elective courses as regards the items above, that they considered themselves competent also in the other performance indicators for settlement, and yet they could not have understood why there was a significant decrease only in item A9.1.

3.10. Findings as regards the Tenth Sub-Problem

Is there a difference in the competence level regarding the ability to assess economic system and processes between the geography department and geography teaching department students by the type of program they attended to?

Table 10. *Chi-square results as regards the difference between the students' level of competence regarding the ability to assess economic system and processes by the type of program they attended to*.

Ability to Assess Economic System and Processes	**Gazi (N=92)**	**Ankara (N=68)**	**Chi-square (sd)**	**P**
A10.1. I can provide the geographical texture of production, consumption, and distribution processes, the basis of economics.	71.7% (Competent)	54.4% (Competent)	8.10(4)	.088
A10.2. I can analyze economic sectors, making deductions about the factors determining their development.	73.7% (Competent)	57.3% (Competent)	11.39(5)	.044*
A10.3. I can criticize the development levels of the countries based on their economic activities.	78.3% (Competent)	76.5% (Competent)	3.33(5)	.650
A10.4. I can provide the distribution and outcomes of economic activities.	79.3% (Competent)	75.0% (Competent)	4.54(5)	.475
A10.5. I can question economic resources in terms of sustainability.	75.0% (Competent)	61.8% (Competent)	8.30(5)	.141
A10.6. I can question the historical development and change in economic activities.	71.7% (Competent)	58.9% (Competent)	12.84(5)	.025*

*p<.05

Table 10 provided that the faculty off education students considered themselves more competent compared geography department students as regards the items A10.2 and A10.6, to an extent creating a significant difference. There was no other significant result as regards the items of this domain, since the expressions of competence were close to each other for the other items.

The 2-credit compulsory COĞ111A Introduction to Economic Geography, 2-credit compulsory COĞ110A Economic Geography, and the 2-credit compulsory COĞ405A Economic Geography of Turkey courses provided in the undergraduate program may be associated with the fact that the faculty of education students considered themselves competent as regards the items A10.2 and A10.6 to an extent creating a significant difference. http://gefcografya.gazi.edu.tr/posts/view/title/lisans-dersleri-52326?siteUri=gefcografya.

There was a significant difference as regards the items A10.2 and A10.6, between the competence considerations of faculty of education students and the geography department students. Face-to-face interviews were conducted with the students of faculty of education in order to find the origin of the said difference. The participants said that they took compulsory and elective courses as regards the items above, that also considered themselves competent in the other performance indicators for settlement, and yet they could not have understood why there was a significant decrease only in items A10.2 and A10.6.

3.11. Findings as regards the Eleventh Sub-Problem

Is there a difference in the competence level regarding the ability to assess the tourism phenomenon between the geography department and geography teaching department students by the type of program they attended to?

Table 11. *Chi-square Results as regards the Difference Between the Students' Level of Competence regarding the Ability to Assess the Tourism Phenomenon by the Type of Program they Attended to.*

Ability to Assess the Tourism Phenomenon	Gazi (N=92)	Ankara (N=68)	Chi-square (sd)	P
A11.1. I can determine the natural and human assets with a view to tourism potential, associating them with tourism activities.	79.4% (Competent)	73.6% (Competent)	6.93(5)	.226
A11.2. I can analyze the effect and outcomes of tourism on societies and countries.	78.2% (Competent)	78.0% (Competent)	4.49(5)	.482
A11.3. I can develop scenarios towards sustainable tourism.	70.7% (Competent)	63.3% (Competent)	6.61(4)	.158

*p<.05

Table 11 provided that there was no significant difference between the competence consideration of the faculty of education students and the non-faculty of education students. In other words no significant result could have been obtained due to similar considerations of competence level.

3.12. Findings as regards the Twelfth Sub-Problem

Is there a difference in the competence level regarding the ability to make spatial analysis for the purposes of culture between the geography department and geography teaching department students by the type of program they attended to?

Table 12. *Chi-square Results as regards the Difference Between the Students' Level of Competence regarding the Ability to Make Spatial Analysis for the purposes of Culture by the Type of Program they Attended to*

Ability to Make Spatial Analysis for the purposes of Culture	Gazi (N=92)	Ankara (N=68)	Chi-square (sd)	P
A12.1. I can explain the geographical factors that had been effective in emergence of cultures.	79.4% (Competent)	72.5% (Competent)	6.52(4)	.164
A12.2. I can relate cultural elements to spatial arrangements .	79.4% (Competent)	80.9% (Competent)	1.29(4)	.864
A12.3. I can make predictions about the future situation of the cultures throughout the world.	70.6% (Competent)	66.2% (Competent)	2.10(4)	.717

*p<.05

Table 12 provided that there was no significant difference between the competence consideration of the faculty of education students and the geography department students. In other words no significant result could have been obtained due to similar considerations of competence level.

3.13. Findings as regards the Thirteenth Sub-Problem

Is there a difference in the competence level regarding the ability to assess natural disasters and environmental problems between the geography department and geography teaching department students by the type of program they attended to?

Table 13. chi-square results as regards the difference between the students' level of competence regarding the ability to assess natural disasters and environmental problems by the type of program they attended to.

Ability to Assess Natural Disasters and Environmental Problems	Gazi (N=92)	Ankara (N=68)	Chi-square (sd)	P
A13.1. I can interpret the characteristics of natural and human elements that constitute the environment.	81.5% (Competent)	73.5% (Competent)	3.15(4)	.534
A13.2. I can relate the natural cycles that make the environment dynamic and the ecosystem.	66.3% (Competent)	61.8% (Competent)	4.20(5)	.521
A13.3. I can make forecasts as regards likely changes in and outcomes of environmental elements.	68.5% (Competent)	66.2% (Competent)	5.74(4)	.332
A13.4. I can interpret the factors that deteriorate natural environment.	57.2% (Competent)	75.0% (Competent)	3.80(4)	.434
A13.5. I can analyze the distribution of environmental problems and natural disasters.	70.7% (Competent)	73.5% (Competent)	1.51(4)	.912
A13.6. I can explain the effects of environmental problems and natural disasters by various criteria.	78.3% (Competent)	75.0% (Competent)	2.07(4)	.722
A13.7. I can compare practices of various countries	70.7% (Competent)	69.1% (Competent)	2.75(5)	.739

towards environmental problems.

A13.8. I can develop scenarios for natural disaster risk management and likely outcomes.	55.5% (Competent)	51.5% (Competent)	1.88(5)	.865

*p<.05

Table 13 provided that there was no significant difference between the competence consideration of the faculty of education students and the geography department students. In other words no significant result could have been obtained due to similar considerations of competence level.

The participants said during the face-to-face interviews with the students of the Faculty of Education that they took compulsory and elective courses as regards the said field of competence, and conducted activities in other courses as well on natural disasters and environmental problems, and thus they were not able to understand why the findings indicated the aforementioned results. A review of the curriculum applied in the faculty of education provided that the student opinions also verified that situation.

4. Conclusion and Recommendations

The research compared the opinions of students attending to geography teaching and geography departments as regards geography field competences by the type of program the students attended to. The research used the first 13 field knowledge competence and 76 associated performance indicators of the Geography Teacher Special Field Competences as set by MEB (2010) end enforced in 2011.

As a result of the research, the students of faculty of education considered themselves competent in 7 out of 13 fields of competence to an extent creating a significant difference. There were no significant differences in the opinions of geography department students towards geography field competences..

While the students of faculty of education considered themselves competent in 7 out of 13 fields of competence (A.1, A.2, A.3, A.5, A.6, A.9, and A.10) to an extents creating a significant difference, no significant results could have been obtained for the six fields of competence (A.4, A.7, A.8, A.11, A.12, and A.13) by the type of program they attended to due to similar considerations of competence. There are 47 performance indicators associated with the 7 fields of competence, which the students of the faculty of education considered themselves competent. The students considered themselves competent to an extent creating a significant decrease in 15 performance indicators out of 47 compared to the geography department students.

There are six fields of competence, in which there is no significant difference as regards the consideration of competence between the students attending to both programs: (A.4, A.7, A.8, A.11, A.12, and A.13). These fields of competence were associated with the ability to understand geographical formations, the ability to understand the elements of biogeography, the ability to understand demographic characteristics, the ability to assess tourism phenomenon, the ability to make spatial analyses towards culture, and the ability to assess natural disasters and environmental problems.

The seven fields of competences, which the students of the faculty of education considered themselves competent (A.1, A.2, A.3, A.5, A.6, A.9, and A.10), were associated with the ability to use geographic methodology, the ability to make location analysis, the ability to conduct activities regarding climate, the ability to analyze water assets, the ability to assess soil assess, and the ability to assess economic system and processes. The students of faculty

of education considered themselves competent mostly in the field competence of A.6 Ability to assess soil assets. They considered themselves competent in four out of five items included in this field of competence to an extent to create a significant difference.

The students of the faculty of education considered themselves competent in 7 out of 13 fields of competence (A.1, A.2, A.3, A.5, A.6, A.9, and A.10) compared to geography department students, creating a significant difference. Face-to-face interviews were conducted with twenty randomly picked 5th grade students of Gazi Faculty of Education, Gazi University in order to find the origin of the difference. The participants said in relation to those items that applied activities were rather prioritized in the faculty of education courses, that they found themselves more competent thanks to the said courses, and that the higher entrance examination scores required to have registered in the program increased the level of their competence consideration.

Consequently, the fact that compared to the non-faculty of education students, the students of the faculty of education considered themselves competent to an extent creating a significant difference might be associated with the number of courses they took, contents of the courses, and differences in applied activities. Furthermore the higher entrance examination scores of the students of the faculty of education could be considered another factor that lead to the difference.

Below recommendations can be made as a result of the study:

1. Contents of the secondary education curriculum should be taken into consideration in preparation of the undergraduate programs implemented in geography teaching and geography departments.
2. It will be beneficial if the undergraduate programs are structured so as to cover and support the approach adopted in the Geography Course Teaching Program (CDÖP) as implemented by MEB.
3. The courses and their contents in the undergraduate programs should be revised so as to prioritize applied activities in teaching.
4. Collaboration between the universities providing undergraduate education and the Ministry of National Education should be increased.
5. The awareness of undergraduate students should be raised with regard to geography teacher special field competences regardless of their departments.
6. The geography teacher special field competences are the criteria applied by the Ministry of National Education in teacher selection, assessment of teachers' work success, and teachers' self-knowledge and career development. In order for the undergraduate students can become high quality, successful teachers in the future it is important that they are raised well-informed about the teacher competences before graduation.

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Appendix

For the purposes of the present study **Competence** is defined as "having the knowledge, skills, and attitudes necessary for performing tasks specific to a field of occupation." Geography Teacher Candidate; Please indicate the degree you feel yourself competent as regards the below competences by selecting one of the competence levels next to each item.		**Very Competent**	**Competent**	**Moderately Competent**	**Less Competent**	**Not Competent At All**
	A1. Ability to Use Geographical Methodology					
	A1.1. I can explain the historical change and development of geographical science.					
	A1.2. I can reflect national and international developments in the field of geography to my practice.					
	A1.3. I can use the basic notions and themes of geographical science.					
	A1.4. I can associate the dual structure of geography with nature and human sciences.					
	A1.5. I can make connections between geography and such sciences as meteorology, geology, biology, demographics, economics, sociology, history, physics, politics, chemistry, and hydrology.					
	A1.6. I can explain the scientists contributed in geographical science and their contributions.					
	A1.7. I can solve the problems I may encounter by making use of basic geographical notions and themes.					
	A1.8. I can use the basic data sources of geographical researches.					
	A1.9. I can classify the data obtained from geographical researches.					
	A1.10. I can visualize the accordingly classified data in the form of tables, graphs, and maps.					
	A1.11. I can interpret the results obtained from geographical questioning stages.					
	A1.12. I can make use of geographical information systems when explaining geographical topics.					
	A2. Ability to Make Location Analysis					
	A2.1. I can use basic concepts of the coordinate system in defining space.					
	A2.2. I can make calculations using the coordinate system elements.					
	A2.3. I can make deductions as regards countries and regions based on their location characteristics.					
	A2.4. I can use mapping skills in location analyses.					
	A2.5. I can differ location, region, area, and space based on location characteristics.					
	A2.6. I can make deductions as regards the relationship between countries and regions based on their location characteristics.					
	A2.7. I can classify countries and regions by scrutinizing the locational relationship of different locations and regions.					
	A2.8. I can make deductions as regards the location characteristics of Turkey.					
	A2.9. I can interpret the locational values of Turkey with a view to regional and global relations.					

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A3. Ability to Conduct Activities regarding Climate					
A3.1. I can explain the characteristics of climate applying the basic notions.					
A3.2. I can associate the properties of climatic elements and their distribution to other natural processes.					
A3.3. I can make deductions are regards climatic regions by interpreting climatic data.					
A3.4. I can make deductions as regards likely changes by associating the other processes in interaction with climate.					
A3.5. I can question the extreme climatic situations.					
A3.6 I can question the local – global effects of climatic change.					
A4. Ability to Understand Geographical Formations					
A4.1. I can classify the geographical formations by the formation processes.					
A4.2. I can explain the geographical formations by applying to related theories and notions.					
A4.3. I can associate the formation process of geographical formations with rock characteristics.					
A4.4. I can assess geographical formations in terms of change and continuity.					
A5. Ability to Analyze Water Assets					
A5.1. I can differentiate water resources by their formation, location, and characteristics.					
A5.2. I can explain the interaction between the water resources and natural and human processes.					
A5.3. I can make predictions as regards likely changes in water resources.					
A5.4. I can develop sustainable water management strategies.					
A6. Ability to Assess Soil Assets					
A6.1. I can associate the factors effective in soil formation with soil characteristics.					
A6.2. I can classify soils by the formation types.					
A6.3. I can question the factors effective in distribution of different soil types throughout the world.					
A6.4. I can criticize the applications intended for proper use of land.					
A6.5. I can develop solutions to prevent wrong use of land.					
A7. Ability to Understand the Elements of Biogeography					
A7.1. I can explain the species and groups of plants taking into consideration the conditions of growth.					
A7.2. I can associate the distribution of natural animal groups with life conditions.					
A7.3. I can classify plants and animals by various criteria.					
A7.4. I can explain the distribution of natural processes applying the biogeographic elements.					
A7.5. I can develop strategies to protect endangered species.					

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A8. Ability to Understand Demographic Characteristics					
A8.1. I can make deductions by applying related demographic terms.					
A8.2. I can interpret demographic data.					
A8.3. I can associate the causes and effects of demographic distribution and movements.					
A8.4. I can make forecasts by associating demographic policies with demographic projections.					
A9. Ability to Analyze Settlement Characteristics					
A9.1. I can associate the factors effective in the emergence of settlements with the development process of settlements.					
A9.2. I can classify the settlements by texture, form, and functional properties.					
A9.3. I can state what the local, regional, and global effects of settlement may be.					
A9.4. I can may predictions as regards the future of settlements considering the factors effective on the settlements.					
A9.5. I can interpret time-bound changes in settlements.					
A10. Ability to Assess Economic System and Processes					
A10.1. I can provide the geographical texture of production, consumption, and distribution processes, the basis of economics.					
A10.2. I can analyze economic sectors, making deductions about the factors determining their development.					
A10.3. I can criticize the development levels of the countries based on their economic activities.					
A10.4. I can provide the distribution and outcomes of economic activities.					
A10.5. I can question economic resources in terms of sustainability.					
A10.6. I can question the historical development and change in economic activities.					
A11. Ability to Assess the Tourism Phenomenon					
A11.1. I can determine the natural and human assets with a view to tourism potential, associating them with tourism activities.					
A11.2. I can analyze the effect and outcomes of tourism on societies and countries.					
A11.3. I can develop scenarios towards sustainable tourism.					
A12. Ability to Make Spatial Analysis for the purposes of Culture					
A12.1. I can explain the geographical factors that had been effective in emergence of cultures.					
A12.2. I can relate cultural elements to spatial arrangements.					
A12.3. I can make predictions about the future situation of the cultures throughout the world.					

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A13. Ability to Assess Natural Disasters and Environmental Problems					
A13.1. I can interpret the characteristics of natural and human elements that constitute the environment.					
A13.2. I can relate the natural cycles that make the environment dynamic and the ecosystem.					
A13.3. I can make forecasts as regards likely changes in and outcomes of environmental elements.					
A13.4. I can interpret the factors that deteriorate natural environment.					
A13.5. I can analyze the distribution of environmental problems and natural disasters.					
A13.6. I can explain the effects of environmental problems and natural disasters by various criteria.					
A13.7. I can compare practices of various countries towards environmental problems.					
A13.8. I can develop scenarios for natural disaster risk management and likely outcomes.					