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City and Regional Planning Undergraduate Students Attitudes Towards Learning Outcomes

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Abstract
The purpose of undergraduate education is to train cumulative and questioning individuals. Through this basic understanding, each discipline-oriented curriculum is shaped for the agenda and the outlook. The Department of City and Regional Planning (CRP) is a department covering some four years of education which is under the Faculty of Engineering and Architecture in some universities and some in Architecture. Students who graduate from CRP can work in the public or private sector and in local administrations as city and regional planners.Although the CRP Department is a discipline affiliated with Institute of Science in Turkey, it offers a theoretical-conceptual framework in many different contexts including geographical, demographic, sociological, economic, political, legal and historical contexts. The CRP Department aims to learn how a undergraduate student can analyze the relationship between human- society-space trilogy and historical context and process-institutional structure-application dimensions. For this reason, CRP undergraduate education contributes to the transformation of the spatial structure in different geographical regions together with the social structure changing from the early ages.Today, 22 universities in Turkey are trained in CRP department. For the 2017-2018 education period, 1237 student were placed in CRP departments and 4% (52 people) of these students were placed in CRP department of Necmettin Erbakan University (NEU) (OK, 2017). Necmettin Erbakan University CRP Department started its undergraduate education in the 2014-2015 Education Year. The department will award first undergraduate graduates in Spring 2018. The aim of this study is to analyze the evaluations of undergraduate students studying in the City and Regional Planning Department of the Engineering and Architecture Faculty in the context of the program outputs. In this context, the quality of education is to make inferences that can contribute to the process of restructuring the educational curriculum in the direction of continuous innovation principle. Questionnaire was used as a means of collecting information in the survey. Statistical evaluation of data; SPSS 21.0 program, Frequency Analysis, Independent Samples Test and One Way Variance Analysis. The results show that undergraduate students are not related to their age, gender, and perceptions of their learning outcomes. Statistical evaluation of the data was done by using Frequency Analysis, Independent Samples Test and One Way Variance Analysis using SPSS 21.0 program. Maps were exported from the database created in the SPSS program with ".xls" extension and transferred to ArcGis program. As a result, it was found that there was no relation between age, gender, class characteristics and perceptions of learning outcomes of undergraduate students.
Keywords: City and Regional Planning Department, Undergraduate Education, Learning Outcomes

1. Introduction

The planning work area covers all types of settlement, from the local scale to the national scale, in many different scales (rural-urban-regional-national). With the transformation of the production and consumption dimension, housing, trade, health, education, tourism and so on. Location selection demands and decisions of transportation networks that provide the relation between function types and these functions shape the use of land. Prints of requests for site selection on land use; Topographical and geographical conditions, location, accessibility, level of urbanization, the importance of urban land, etc. Are becoming more intense by combining with factors. In this context, the process of analysis, synthesis, planning and implementation of a sustainable spatial structure suitable to the existing socio-economic structure is increasing the importance of the CRP Division.

The planning work area covers all types of settlements at various scales (rural-urban-regional-national), from the local scale to the national scale. Along with the transformation of the production and consumption dimension, the demand for and decisions on the location of the transportation networks that provide the functions such as housing, commerce, health, education, tourism and the relationship between these functions shape the land use. The pressures of requests for land use selection, topographical and geographical conditions, location, accessibility, level of urbanization, are becoming more intense by combining with factors that are important for urban land. For this reason, the analysis, synthesis, planning and implementation of a sustainable spatial structure suited to the existing socio-economic structure is increasing the importance of the CRP Department.

One of the 16 departments of the Faculty of Engineering and Architecture of NEU, CRP Department started its undergraduate education in 2014-2015 Education Year. The department will award its first graduates at the end of the 2017-208 Education Year. The academic staff of the department; two Associate Professors, three

Assistant Professors and two Research Assistants. In the four-year training of the CRP Department; 140 credits theoretical course, 35 credits Planning Studio course. In the CRP Department, theoretical lectures support the "planning studio" which includes the technical dimension of the planning process. The names of the theoretical courses may vary from university to university. Some of the theoretical lessons are; History of Scientific Thought, Research Methods and Techniques, History of City and Planning, Statistics in Planning, Urban Sociology, Urban Economics, Urban Management, Urban Transportation, Physical Environment Control, Planning Theories, Urban Equipment, Urban Conservation and Renewal, Landscape Planning and Design, Urban Design, Planning in Rural Settlements, Regional Planning, GIS and Planning, Urban Geology, Urban Geography, Planning Law, Urban Policy, Tourism Planning, Urban Ecology, Urban Life Quality, Spatial Dimension of Globalization etc. (SBP, 2017).

The objectives of the theoretical courses consist of the following headings; accessing a synthesis by analyzing societies and places; providing the students with the concept of various factors such as geographical, economic and sociological factors that shape the daily rural areas and cities from the first settlements; being aware of commonweal and ethical issues; to project the placements for the 20-30 years later; distributing urban infrastructure and public services in a way that will overcome the problem of regional inequality; acquiring competence to create sustainable, accessible and livable habitats. The studio courses cover a wide range of scales between 1:500 and 1:100.000, including the analysis-synthesis and planning processes of settlement areas of different sizes depending on the academic year. In this scope, studio courses are an opportunity to realize the essentials and principles of city planning, which transforms the knowledge gained in theoretical courses.

Students who demonstrate individual knowledge and skills in theoretical lectures are given the opportunity to work together in studio lectures and are guided to exhibit team spirit. In the course of studios, the analysis and synthesis sequence which aims to define a settlement with every dimension is a detailed and longtime process. For this reason, in the process of analysis and synthesis involving the preliminary phases of the planning phenomenon, it is expected that students will be grouped under different thematic headings. At this stage, they transmit information and documents describing all phases of the settlement they are studying systematically and spatially, with maps and diagrams of different dimensions. With the group work carried out in studio lessons; CRP students who will work with graduates of different disciplines in their professional life; to be able to fulfill their responsibilities within the group, to make leadership, to take initiative, to design and present the final product effectively. As of spring 2017, there are 167 students in the department. There are 42 students in the fourth grade, 69 students in the third grade and 56 students in the second grade.

In this scope, a student who graduated from the CRP discipline; it can be said that it has the level of knowledge in every field of daily life, and it is at a level where it can discuss the agenda and the contemporary. A City and Regional Planner who has taken up his career; it can also be said that it can be an innovative, creative and competent practitioner who can read, analyze and synthesize the social-economic-spatial fiction about the natural and built environment, produce plans using this data.

The European Union has entered the Bologna Process in the direction of the establishment of higher education institutions within the framework of qualifications and the development of a common quality understanding throughout Europe. In this context, Bologna continuous adaptation was accepted as the basic principle in the NEU established in 2010. The education and training structuring in undergraduate programs has started to be designed accordingly. CRP Department "Learning Outcomes" was prepared in July, 2013 before starting undergraduate education (NEU,2017).

The Bologna Process aims to take into account the individual differences of students in preparing a student-centered, work-based training program (Asan ve Akkoyunlu, 2015). Learning outcomes are the predictions of the learners at the end of the training process, which they are expected to understand and understand. The European Qualifications Framework defines learning achievements as a whole of knowledge, skills and competence indicators (Günay, 2012). Learning outcomes are knowledge and skills such as critical thinking, writing, and problem solving that are not specific to the discipline, as McKeown and Ercikan have conveyed, and are skills that can be applied across disciplines to prepare graduates for the community and professional life (McKeown and Ercikan, 2017). It is seen in literature that learning outcomes or learning gains concepts are used interchangeably. McGrath et al. in their study named “Learning Gain in Higher Education” stated that the concept of learning gain is the difference between the skills, competence, content knowledge and personal development that they show in two points in time, or “distance travelled”, and that learning outcome concept is the output level of achievements (McGrath et al., 2015). One of the factors that influence learning outcomes or outcomes is learning style. Individuals passing through the same education and training process can not learn at the same level and with the same quality. At this point, the concept of learning style, which expresses individual differences, emerges. In 1960 Rita Dunn introduced the concept of learning style for the first time. Dunn defines this concept as a way for students to use their own unique ways to learn new and difficult knowledge. In 1996 Grasha defined the concept of learning style as a combination of the ability of the learner to acquire knowledge and the experiences of the learning process (Tüysüz, 2013).

The purpose of this research is to determine the views of the students of the NEU CRP department on their learning outcomes. Within the scope of the questionnaire, learning outcomes consisting of 23 sub-items were presented with likert type scale of 5. The purpose of this study is to determine whether or not there is a significant difference undergraduates' views on learning outcomes by gender, age, class.

2. Method

2.1 Research Model

Relational survey method is used in this study. With this method, the questionnaire tried to determine whether there is a difference between more than one variable, and if so, the degree of change.

2.2 Research Group

The CRP Department, which continues its undergraduate study in two state universities in Konya, constitutes the students' universe. 120 students from the NEU CRP Department formed the sample of the research. Of the 167 undergraduate students, 120 (72%) were reached within the scope of the research.

2.3 Data Collection Instruments

A questionnaire consisting of 44 questions and six sections used in the research was used. Survey sections; Personal information, residence status, income and working status of students, cultural participation and consumption status, urban perception and learning outcomes. In practice, names and numbers were not received from the students.

The list of "Learning Outcomes" for which the opinions of the students were taken from the Bologna Package prepared for the City and Region Planning Department (NEU, 2017).

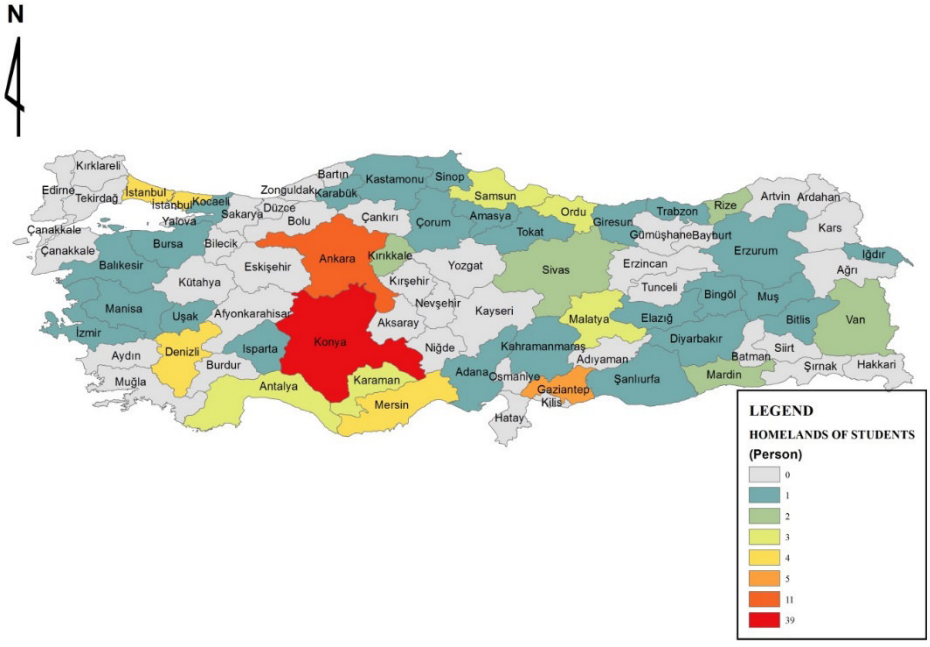
2.4 Data Analysis

For the analysis of the data, SPSS 21.0 program was used. In order to determine whether there is a significant difference between students' views on learning outcomes; T test for gender status variable, one way ANOVA for age and class variables. In the study alpha reliability coefficient was taken as 0.95.

Method of obtaining maps; According to the responses given in "students' homelands and residence status" questions of the database created in the SPSS Program; The spreadsheet created from the analyse section in the SPSS program which is exported with ".xls" extension. The tables with ".xls" extension were added to the ArcGIS program and maps were obtained according to the obtained data.

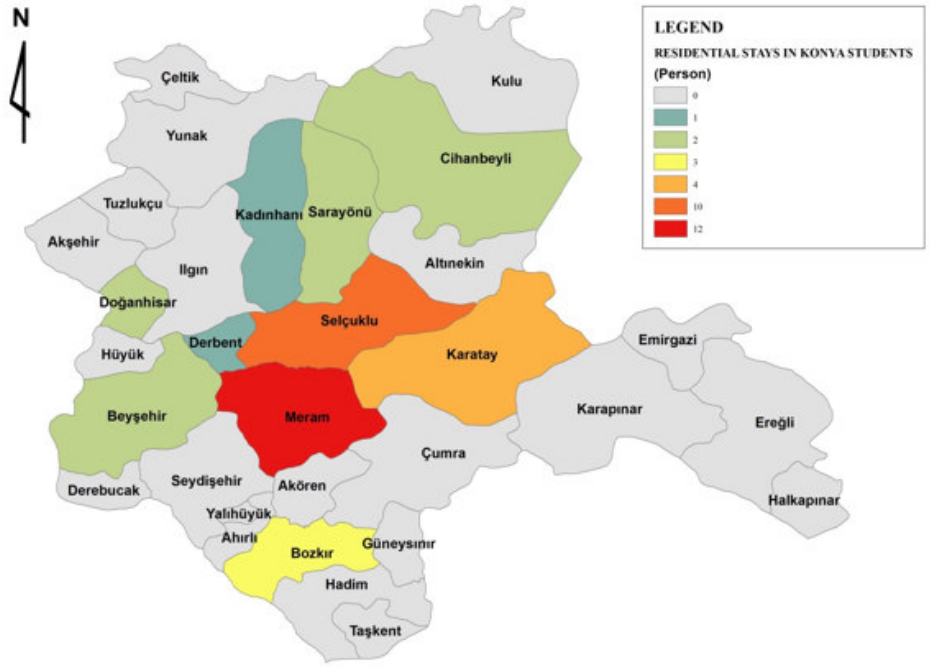
3. Findings

Of the 120 students who participated in the survey, 73 (60.8%) were female and 47 (39.2%) were male. 39 of the students (32.5%) are from the central and surrounding districts of Konya and 81 (67.5%) are from other cities (Map 1).



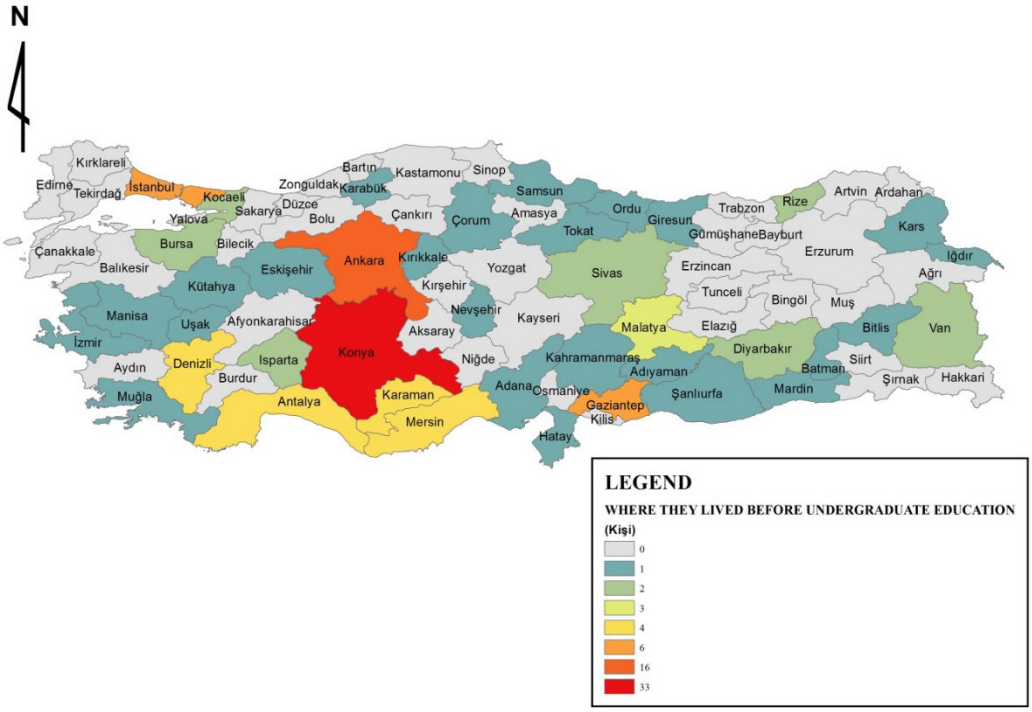
Map 1. Homelands of surveyed students

When the cities where 39 students from their hometown Konya reside with their families before the undergraduate education are examined, 26 students in the central districts of Konya and 13 students in the surrounding districts are resident (Map 2).



Map 2. The residence status of the students who are the central and environmental districts of Konya

When the students who participated in the survey are compared with the cities they reside in before the training period and except the training period; 27,3% (33 people) Konya, 13,2% (16 people) Ankara, 5% (6 people) Gaziantep and 5% (6 people) Istanbul stand out (Map 3).



Map 3. Residence of students before undergraduate education

Independent Samples Test was used to determine whether or not there was a significant difference between students' genders and their perception of learning outcomes, and the findings are presented in Table 1.

Table 1. The relationship between undergraduate student's Genders and Learning Outcomes

		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
The mean of Learning outcomes	Equal variances assumed	,042	,838	-1,191	118	**,236**	-,1145	,0962	-,3050	,0759
	Equal variances not assumed			-1,232	108,803	**,220**	-,1145	,0929	-,2988	,0697

As the table shows, the learning attainment of the students does not show any significant difference according to their genders (p>.05).

9 students (7,5%) 16-18; 84 students (70%) 19-21; 24 students (20%) 22-24; 1 student (0,8%) 25-27; 2 students (1.7%) are in the age group of 28 and above. One Way ANOVA was used to determine whether or not there was a significant difference between the age of the students and the average scores of perceptions of learning outcomes. As a result of the analysis, the variances were found to be homogeneous with 95% confidence (Table 2).

Table 2. The relationship between Age and Learning Outcomes

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	1,193	4	,298	1,129	,347
Within Groups	30,380	115	,264		
Total	31,572	119			

When Table 2 is examined, it is seen that there is no significant difference between learning outcomes and age of students (F_{119}=1,129, p=.347).

From the studenst of class 1,2 and 3, 36,7%(44) of surveyed are 1st class students, 48,3%(58) of surveyed are 2nd class students; and the rest 15%(18) them are 3rd class students. According to the One-Way ANOVA, the variances between students' classes and learning outcomes are homogenized (Table 3).

Table 3. The relationship between the Classes of students and Learning Outcomes

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	2,480	2	1,240	4,987	**,008**
Within Groups	29,092	117	,249		
Total	31,572	119			

There seems to be no significant difference between the classes of students and their learning outcomes (F_{119}=4,987, p=.008).

The descriptive statistics for the learning outcomes of 23 items belonging to City and Regional Planning Department undergraduate education analyzed with the likert scale of 5 and the questionnaire survey are as follows;

Table 4. Analysis of opinions on Learning Outcomes, Likert Type Scale

Strongly agree 5	Agree 4	Neutral 3	Disagree 2	Strongly disagree 1	N	Mean	Std. Deviation
1. Interpretation of the natural, cultural, spatial and socio-economic sustainability concepts in planning decisions and practices					120	**4,058**	0,7017
2. Perceiving settlement systems					120	**4,025**	0,7386
3. Conceptualizing ability					120	3,875	0,8257
4. Having knowledge about the social, economic, physical, sectoral and legal dimensions of urban and regional planning discipline					120	3,842	0,8096
5. To use oral, written and visual presentation techniques effectively					120	3,833	0,8233
6. The awareness of professional ethical values, and acting proper to these ethic values					120	3,742	0,7724
7. To distinguish the complex planning problems at urban/regional scale and sectoral levels, making projections for the needs and development of settlements, and preparing alternative plans					120	3,725	0,9071
8. Using qualitative & quantitative research methods in analysis-synthesis-planning processes					120	3,717	0,8519
9. To take responsibility in interdisciplinary studies, to communicate with stakeholders effectively					119	3,714	0,958
10. Developing critical approaches to the practice of urban and regional planning					120	3,7	0,9038
11. Becoming aware of the necessity and importance of lifelong learning process, following the scientific and technological innovations					118	3,686	0,903
12. Scientific, strategic, creative and problem-based thinking					120	3,683	0,9525
13. Using knowledge and skills in planning processes					120	3,667	0,9556
14. Being aware of urban history, planning theory and legal, institutional and political dimensions of planning on the discipline of planning					120	3,617	0,8714
15. To predict the urban&regional problems and the potentials, and the socio-spatial processes exist behind the needs that may arise in the future and to involve that processes' stakeholders into the planning practice					120	3,6	0,8341
16. Collecting and interpreting the information in ethical values, and transferring the data to social life in public interest					120	3,592	0,8648
17. To be aware of local / regional dynamics and the developments					120	3,508	0,8792
18. Comprehending the roles of urban governments and public &private actors					120	3,475	0,9955
19. To assimilate the past and current basic concepts related to occupation					119	3,454	0,8512
20. Having knowledge about the dynamics of global and local dynamics					120	3,45	0,8387
21. Reflecting the analytical thinking style that planning requires to the all aspects of life					119	3,429	0,9439
22. Using the current technology required in professional field					120	3,375	1,1081
23. To have good English (writing, speaking and writing) which will enable them to follow the agenda and the literature in the field of urban and regional planning, and also to communicate with their colleagues efficiently					118	2,297	1,1041
Valid N (listwise)					117		

The most positive perceptions of students are the heading of learning outcomes;" interpretation of the natural, cultural, spatial and socio-economic sustainability concepts in planning decisions and practices" (mean:4,058) and "perceiving settlement systems" (mean:4,025). Nevertheless, the most negative attitudes of the students are the heading of learning outcomes; "to have good English (writing, speaking and writing) which will enable them to follow the agenda and the literature in the field of urban and regional planning, and also to communicate with their colleagues efficiently" (mean:2,297).

4. Conclusion and Suggestions

As a result of the questionnaire survey conducted with 120 students educating at the NEU City and Regional Planning Department; there appears to be no significant difference between learning outcomes and age, gender,

and class variables seen in education. The learning outcomes with a minimum average is to have an English language to follow the international agenda. The education and teaching method of the Department of City and Regional Planning is in Turkish. However, many of the students came from the Prep Class and all took English lessons from the First Class. In this sense, it is advisable to use a different method in foreign language education to the university. Through the social activities to be realized in the university or through student communities, students can be provided with access to foreign academic literature, reading and discussion environments.

From the analysis of learning outcomes, it would be useful to make recommendations. Whether theoretically necessary in the planning studio courses; It is necessary to focus more on issues such as assimilating basic concepts, understanding global and local dynamics and the roles of actors, and using the technology required by the profession. In this sense, scientific studies such as conferences, panels, seminars should be arranged by taking the support of public - private sector and local administrations; the theory-practice relationship must be embodied in the student's mind.

In undergraduate education, it is aimed to reach the information source of the student as an individual or group, to interpret the information, to have the equipment required by the profession, and to make the student active, productive and harmonious. Within the scope of studio lessons, students travel together to the field where they do their work and perform the analysis and synthesis process as a team. Therefore, students are not only preparing and presenting individual products, but also presenting work produced by groups. During the group work, they are working-not working, being leader-qualified, being able to make presentation in studio jury-such as lack of self-confidence and difficulty in presentation. It is seen that the students are different in the forms. Everyone who has graduated as a City and Regional Planner should be a capable profession who is active, researching, questioning, interpreting and transferring. For this reason, while students are being educated in the discipline of City and Regional Planning, it should be taken into consideration that the students have different learning styles from the fact that the students have individual differences.

It is stated that using the appropriate learning approach in the literature will enable the students to find solutions more easily without solving the problems in learning process (Shaari, et al., 2011). Grasha and Riechmann investigated individual learning styles according to the social and affective perspectives of the students. And for learning styles; they have set up three opposite styles, Dependent-Independent, Collaborative-Competitive, and Passive-Participant (Akdeniz, 2017; Yalçın,S.B.,Kavaklı,M.,and Kesici,Ş.2017). Thus, the fact that the learning styles of students are different explains why a successful student in individual performances is not successful in group performance or vice versa.

The training programs should be focused on the student, taking into account the internal and external causes and strengths and weaknesses. As mentioned in McGrath et al.'s work on “Learning Gain in Higher Education”, learning gains at the “two points in time” (at the end of each training period) should be assessed on the same students (McGrath et al., 2015). Learning outcomes expressing knowledge and skills such as critical thinking, writing and problem solving to prepare rewards for society and professional life should be examined and revised considering the differences of learning styles (McKeown ve Ercikan, 2017, Tüysüz, 2013).

In this sense, the functioning of the lessons should be rescheduled with an understanding of the discovery of the student, the awareness of individual differences, the importance of the learning styles and the students' participation in the lessons. Regulation and development of course workings in the direction of differentiation of learning styles will contribute to increase positive attitudes of students towards learning outcomes and to be taken into professional life as conscious-confident individuals.

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