



Sustainability in Urban and Regional Planning Education in Turkey

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ABSTRACT

Purpose: This study attempts to assess the status of sustainability across Urban and Regional Planning (URP) Undergraduate programs in Turkey by (1) examining the contents of sustainability courses, and (2) acquiring more information about how the courses are taught and evaluated.

Research Methods: The study is based on a document analysis of course syllabuses, which are documents including course description, course objectives, course content, reading materials, recommended textbooks, and evaluation techniques. The course syllabuses are examined using both descriptive and content analysis. With the descriptive analysis, the current status, teaching and evaluation methods, and teaching instruments are identified; with the content analysis, common themes are defined.

Findings: The results showed that sustainability was taught through different themes, including economic, environmental, and social contexts which are fundamental in URP undergraduate education. The most frequently recurring themes included tourism and conservation, alongside ecology, planning, urban ecology, and environmental issues. It was found that themes such as urban and sustainable planning, improvement, and development all had roots in the theme of sustainability. In contrast, it was also noticed that economy/economics, while important, was barely touched.

Implications for Research and Practice: In this study, the findings regarding how sustainability is currently covered in URP undergraduate programs across Turkey have been systematically presented with the expectations that this contributes to curriculum development overall and in a better way.

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Introduction

The harm that human intervention has impacted upon nature has reached critical levels in the 20th century, even though human settlement pre-dates this with a long time-span. The intricate systems of the cities within which humans inhabit have brought many problems and the continuity of urban life is only possible with sustainability and establishing a balance between human systems and nature. "Man has the fundamental right to freedom, equality and adequate conditions of life, to live in an environment of a quality that permits a life of dignity and well-being, bearing a solemn responsibility to protect and improve the environment for present and future generations." (United Nations, 1972).

The rate of urbanization was around 50% (UN, 2019) at the time the United Nations had published the Stockholm declaration, the first important source for sustainability. Today, urbanization has reached 80% of the global population. Sustainability is a fundamental concept in urban planning and design, given that urbanization leads to many social, economic, and environmental problems. Accordingly, many countries develop sustainability policies and take precautions at spatial and institutional levels to ensure that cities use resources correctly and efficiently. Many national and regional action plans/policies feature regulations on sustainability at the spatial level. On the other hand, all relevant state institutions and organizations aim at raising awareness about sustainability especially through universities (Ginkel, 2004). Universities should initiate and lead sustainable development and social activities to create awareness (Ginkel, 2004; Jabareen, 2012; Dimitrova, 2014; Yildirim & Simsek, 2018).

Education plays a vital role in raising awareness of sustainability. In this context, many relevant programs in universities often include sustainability issues as part of their curricula, and even establish fields of specialty (Cullingford & Blewitt, 2004; Garcia et al., 2006; Lidgren et al., 2006; Anderberg et al., 2009; Pijawka et al., 2013; Bieler & McKenzie, 2017). Undergraduate programs such as natural sciences, including engineering, architecture, and design take the lead. Of these, with its multidisciplinary nature/structure, URP education guides spatial development and plays a critical role in achieving sustainable development (Scholl, 2012).

URP aims to design cities as systematic and sustainable living environments with forward-thinking predictions that develop solutions to the existing problems of cities. For this reason, sustainability issues and themes are included in URP undergraduate programs from different perspectives (Huckle, 2004; Barth et al., 2007). A variety of areas such as regional planning, urban design, land-use planning, transportation planning, urban conservations, and green systems planning focus on sustainability and are included in URP undergraduate programs (Gunay et al., 2017; Frank & Silver, 2018).

In this study, the literature was summarized within the scope of the current state of sustainability in universities and URP education, and the place of sustainability in URP education as the intersection of these two. Studies on sustainability in universities mostly assess how sustainability is handled and applied in different universities and

at different levels. Such studies are generally conducted by using descriptive and content analysis (Sterling, 2004; Lidgren, et al., 2006; Jabareen, 2012; Altomonte et al., 2013; Blake et al., 2013; Figueiró et al., 2015; Porras Alvarez et al., 2016).

Lidgren et al. (2006) developed an organizational assessment with a systematic approach for sustainable development in their studies where they examine the university curriculum in the context of sustainability-related content. In this way, they created a guidebook for curriculum design with a focus on sustainable development at the university level. Jabareen (2012) developed a conceptual framework for sustainability education aiming to eliminate the conceptual confusion and misunderstandings regarding sustainability education. In their descriptive work, Figuero et al. (2015) systematically reviewed articles published in international higher education journals based on various categories (type, challenges, teaching techniques, and curriculum orientation). Similarly, Porras Alvarez et al. (2016) undertook comparative studies on the distribution of sustainability-related courses in the curriculum in architecture schools in Asia and revealed the types and grade levels of these courses in the education process.

Studies on URP education, in contrast, generally focus more on the place of technology in planning education, the future of planning education, the experiences of the students in planning education, studio-based education, and the role of elective coursework in students' professional development. These studies aim to develop an education model and form a theoretical basis for pedagogy (Lang, 1983; Freestone et al., 2006; Ghonim, 2017; Movchan & Zarishniak, 2017; Frank & Silver, 2018). University-based sustainability studies usually involve the content of the courses, teaching and evaluation methodology, and the creation of syllabuses for courses. They are generally conducted using document and content analysis (Thomas & Nicita, 2002; Cullingford & Blewitt, 2004; Zhan et al., 2015; Bieler & McKenzie, 2017). Finally, it has been observed that studies on the place and scope of sustainability in URP education, which are in the cross-section of the aforementioned issues and form the basis of this study, are quite new and limited.

Frederick (2012) examined the level of realization of learning outcomes for sustainable development through curricula, training methods, and assessment methods in URP education. In addition to these inquiries, the feedback from the students was also evaluated and a survey was conducted. Similarly, Pijawka et al. (2013) undertook a study on the integration of sustainability into education programs, in which they examined the aim, content, learning outcomes, and experiences of the design program then used the information obtained to develop a systematic approach model featuring sustainability.

URP education is essentially rooted in the sustainable development paradigm, and its principles are part of the curricula of planning schools in developed regions (Lidgren et al., 2006; Anderberg et al., 2009; Frederick, 2012; Dimitrova, 2014; Figueiró et al., 2015). There are numerous studies regarding the design studio modules and learning achievements (Porras Álvarez et al., 2016). However, there are scant studies

that reveal the current status of the sustainability courses in URP undergraduate programs in Turkey.

As Sterling (2004) noted, sustainability should not be considered as an issue that can only be added to the curriculum but rather, as a perspective it should be adopted as a basic principle in shaping the institutional structure and the education process. Therefore, the place of sustainability in undergraduate education arises as an important question. For this, initially, the level of the sustainability content and the choice of teaching instruments when taking the sustainability route should be revealed. However, few studies reveal the current status of the sustainability courses in URP in Turkey. This study, therefore, attempts to assess the current status of sustainability across URP undergraduate programs in that country. For this purpose, the following three research questions are posed:

1. What is the current status of sustainability courses in URP undergraduate programs in Turkey?
2. What are the pedagogical methods for sustainability courses in URP undergraduate programs in Turkey?
3. What kinds of sustainability themes and learning contents are most frequently taught in URP undergraduate programs in Turkey?

Method

Research Design

This study is qualitative in nature hence relying on qualitative observation, interviewing, and document analysis which permit the researcher(s) to present their findings as a whole (Yildirim & Simsek, 2018). The document analysis is used to reveal the concept of sustainability in depth. Also, the dataset consists solely of documents (course syllabuses). In this case, it is important to actualize content analysis based on the aim of the study (Bailey, 2008) hence both descriptive and content analysis have been used to analyze the data.

Research Instruments and Procedures

Concerning the study purpose, the course syllabuses (i.e. written materials that explain the scope/content of the sustainability courses in detail) were examined. Document analysis was carried out in four stages: (1) Accessing the documents; (2) Checking the originality of the content in the documents; (3) Understanding the documents; (4) Analyzing the data (Forster, 1995).

1. The data were collected in 28 universities between July and September of 2019, by keeping track of universities with active URP undergraduate programs via the annually updated Higher Education Institution Atlas Website (URL-1, 2019).

2. In the second stage, the originality of the data was checked. Originality is verified based on the content in the course syllabus which is made up of;

- Course profile (level, type, compulsory, elective, project),
- Curriculum design (course title, objectives, content, topic, learning outcomes),
- Assessment and evaluation (homework, seminar, application, project, exam),
- Instructor profile (academic title).

Each course syllabus was examined and checked in terms of these contents. Courses missing one or more of the contents described above were eliminated. In the third stage, systematizing the obtained data according to the purpose of this study is important in terms of understanding the documents (syllabuses) before starting the data analysis phase. This was achieved through a specific search for two keywords in the course packages: “sürdürülebilirlik” (sustainability) and “sürdürülebilir” (sustainable). A hundred and sixty-three courses having these keywords were identified (Figure 1). Finally, in the data analysis stage, the sample was first determined then the syllabuses of 163 courses were scanned in the context of sustainability.

In this context, courses containing the term “sustainability” in at least one of the content, objectives, and learning outcomes in addition to the theme in the syllabus were selected. Thus, 115 courses that did not meet this requirement were excluded. As a result, 48 lessons that fulfilled this requirement constituted the sample of the study. The sampling subject of 48 course syllabuses were examined by using descriptive and content analysis methods. Figure 1 shows the data collection period of the study.

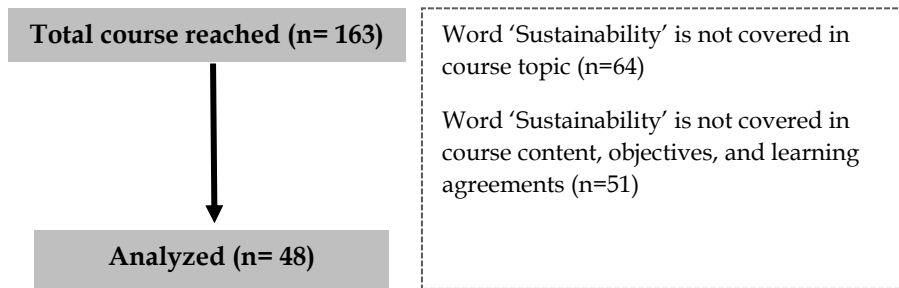


Figure 1. Data Collection Period

Data Analysis

In this study, both descriptive and content analysis were used. Sub-categories determined based on the research questions were examined with descriptive analysis. Accordingly, sustainability-focused courses, sustainability-related courses, course types and credits evaluation (1st question), instructor profile (academic title) and course level relation, teaching and evaluation methods (2nd Question), and themes and textbooks (3rd Question) across URP undergraduate programs were identified. The current status of sustainability in URP education and the context in which concepts of sustainability are taught to students were questioned by using the content analysis method.

The main goal of content analysis is to obtain concepts and relations that explain the collected data. This requires both the gathering of similar data within the context of certain concepts and themes, as well as interpreting those data in such a way that they are accessible to the reader (Yildirim & Simsek, 2018). Moreover, the data require coding, conceptualizing, and categorizing (Krippendorf, 2013) and consequently they help in evaluating the body of literature in a particular field of study. The present study features the syllabuses of undergraduate courses focusing on sustainability within the specific context of Turkish universities.

Data analysis for course themes was undertaken using content analysis. During the coding, the researchers aimed to define the information obtained by examining it and organizing it under certain codes for which a sustainability theme and code list was created (Colantonio, 2010; Heymans et al., 2019). Thus, the theme and code list was used as a key list in analyzing and organizing the data and all encoders used this theme and code list (Table 1).

Table 1

Theme and Code List

Themes	Codes
Ecology	Urban Ecology, Landscape, Rural, Ecological Approaches, Ecological Settlements.
Environment	Human Settlements, Environmental Problems, Nature Conservation, Environment Sensitive Planning, Environmental Concept, Human And Environment Interaction, Natural Environment, Physical Environment etc., Environmental Conservation.
Conservation	Urban Conservation, Conservation Theory and Approaches, Nature Conservation, Regulations.
Sustainability	Sustainable Development, Sustainable Planning Approaches, Sustainability Indicators.
Tourism	Tourism Planning, Tourism Economy.
Ecosystem	Ecosystem, Settlement Systems, Transportation Systems, Analysis Systems, Planning Systems.
Social	Wellbeing, Health.
Biodiversity	Biodiversity corridors, wildlife allotments, green corridors, nature corridors, urban wildlife.

This list was used to examine common themes and to ensure the coding reliability of the research, 3 researchers participated as coders encoding the raw data independently. Agreement among the coders was achieved during this study. For instance, for the sustainable planning course I: researcher has found 12 themes, for sustainable planning course II: researcher has found 13 themes, for sustainable planning course III, the researcher has found 15 themes. The codes found are marked as identical and dissociated codes. Miles and Huberman (2016) refer to the similar codes as "Agreement" and the diverging codes as "Disagreement" and propose the formula of Reliability Percentage = Agreement / (Agreement + Disagreement) *100 for

coder reliability. The following calculations were made for encoder reliability in the study.

Table 2

Coder Reliability Percentages for A Sample Course

Course Name: Sustainable Planning						
	<i>1st and 2nd</i>		<i>1st and 3rd</i>		<i>2 and 3rd</i>	<i>Total</i>
Agreement	11		10		12	
Disagreement	12	2	12	3	13	2
	13		15		15	
Reliability Percentage	85%		77%		86%	83%

As seen in Table 2, between 1st and 2nd coders 85%, between 1st and 3rd the coders 77% level of agreement was found, between 2nd and 3rd coders 86% agreement was found, between the three coders, approximately 83% level of agreement was found. The Miles-Huberman formula value shows that coding above 80% is reliable (Miles & Huberman, 2016).

Results

The findings are presented below per the categories identified in the research questions. Then, fundamental issues and proposed sources in Turkey were presented within the scope of the body of sustainability literature.

(1) Current Status of Sustainability Courses in URP Undergraduate Programs in Turkey

The status was examined in terms of course type, level, and credit.

Identifying sustainability-focused and sustainability-related courses

To identify the courses as “sustainability-focused” and “sustainability-related”, the courses are divided into two groups: (1) “sustainability-focused” and (2) “sustainability-related”. The classification criteria for each were: (1) Title + Topic + Content/Objective/Learning Outcomes and (2) Topic + Content/Objective/Learning Outcomes.

Table 3 shows the distribution of sustainability-focused and sustainability-related courses taught throughout universities with URP undergraduate programs. Forty-eight (48) sustainability courses were identified across 20 different universities. Selçuk University and Bursa Technical University taught the highest number of courses on sustainability. Of the 48 courses that were evaluated, 21% were sustainability-focused, while 79% were sustainability-related.

Table 3

Sustainability Courses Across Universities And Their Relation with Sustainability

Year Found	Name of the University	Sustainability-Related Course			Sustainability-Focused Course			Tot.	Percent
		CC*	EC	SP	CC	EC	SP		
1963	Middle East Technical University		2				2	4.1	
1979	Dokuz Eylül University		1				1	2	
1983	İstanbul Technical University				1	1	2	4.1	
1984	Gazi University	2	1			1	4	8.3	
1986	Yıldız Technical University		2				2	4.1	
1994	Selçuk University	5					5	10.4	
1999	Erciyes University	2	1			1	4	8.3	
2003	Yozgat Bozok University	1	1				2	4.1	
2005	Karadeniz Technical University		2			1	3	6.2	
2005	Süleyman Demirel University	1					1	2	
2007	Gebze Technical University	1		2			3	6.2	
2009	Amasya University	2					2	4.1	
2011	Mersin University	2					2	4.1	
2013	Konya Technical University	2					2	4.1	
2014	Kırklareli University		2		1	1	4	8.3	
2015	Pamukkale University		1				1	2	
2016	Bursa Technical University	2	1	1		1	5	10.4	
2017	Uşak University		1				1	2	
2018	Çanakkale Onsekiz Mart University					1	1	2	
2018	İzmir Demokrasi University					1	1	2	
Total		21	15	3	2	8	0	48	100

*CC: Compulsory Course, EC: Elective Course, SP: Studio Project

Defining course type, credit evaluation, and their relationship to sustainability

Table 3 also examines both categories of courses per their types: compulsory, elective, and project. It can be seen that most, including three project courses, fall under the second category (n:38), i.e. they are sustainability-related. When compulsory and elective courses are compared with one another, it is seen that elective courses tend to be more sustainability-focused than their compulsory counterparts. This is supported by the fact that compulsory courses are generally similar to each other and more focused on sustainability than elective courses. Of the total number of courses, 80% were elective and 20% were compulsory, while 53% of sustainability-related courses were compulsory, 39% were elective, and 8% were applied project courses (Table 3).

Sustainability-related courses are mostly compulsory and contain either 3 or 4 European Credit Transfer and Accumulation System (ECTS) credits. Three project courses contain 8 ECTS credits, 6 elective courses contain 5 ECTS credits, one compulsory, and one elective course contain 2 ECTS credits. Twenty-five percent (25%) of these falls under the second category, i.e. they are sustainability-related. Similarly, the remaining courses contain 3 and 4 ECTS, respectively. Students have a workload of between 75 and 120 hours in a given term. One ECTS credit equates to

between 25 and 30 workload hours.

Course level, type, and instructor profile (academic title)

Of the 48 courses that conceptually teach sustainability, approximately 14% are first-year courses, 29% are second-year courses, 40% are third-year courses, and 17% are fourth-year courses. Interestingly, it was discovered that first and second-year compulsory studio projects are dealing with the theme of sustainability (Table 4).

Table 4

Course Type and Course Level Relation

		Course Level				Total	
		1 st Year	2 nd Year	3 rd Year	4 th Year		
Course Type	Studio Project	Count	1	2	0	0	3
		% within Course Type	33.3%	66.7%	0.0%	0.0%	100.0%
Compulsory Course	Com-pulsory Course	Count	5	8	9	0	22
		% within Course Type	22.7%	36.4%	40.9%	0.0%	100.0%
Elective Course	Elective Course	Count	1	4	10	8	23
		% within Course Type	4.3%	17.4%	43.5%	34.8%	100.0%
Total	Total	Count	7	14	19	8	48
		% of Total	14.6%	29.2%	39.6%	16.7%	100.0%

When the second-year curricula are examined, it can be seen that there are twice as many compulsory courses as there are elective courses. Third years also show an increase in both the number and diversity of sustainability-related courses that are available to students. Several elective and compulsory courses are close to each other in terms of type. Fourth-year courses dealing with sustainability generally are electives. In brief, first and second-year courses featuring sustainability are generally compulsory, while the number of compulsory courses gradually gives way to elective courses instead for the third and fourth years in university. What this shows is that the value of the theme of sustainability decreases as the years advance (Table 4).

In this study, it was found that professors mainly *teach* sustainability-focused courses, whereas assistant professors generally *instruct* regarding sustainability-related courses. It is noteworthy that 70% of assistant professors are female. Based on the above points, it can be concluded that sustainability courses, whatever their form, are generally *instructed* by academics who are at the beginning of their careers. This is further strengthened by the fact that sustainability is a relatively new course/concept throughout most curricula. The findings show that the vast majority of the sustainability courses (40%) are generally *instructed* by assistant professors (n: 19). Then, both associate professors and professors generally *instruct/teach* respectively

second, third-, and fourth-year courses.

(2) What are the Pedagogical Methods for Sustainability Courses in URP Undergraduate Programs in Turkey?

In this section, the teaching and evaluation methods of 48 courses (post-elimination) featuring the concept of sustainability were examined. In light of this, course syllabuses were referred to in order to inspect the components of each course, including lectures, lab work, field trips, and guest speakers, alongside homework, seminars, projects, and exams. The findings were queried by correlating them with course types.

Teaching Methods

The findings showed that 100% of all courses were taught through lectures and that they featured just 6.3% of lab work, 10.5% of field trips, and 2.1% of talks by guest speakers. Additionally, almost all lessons are given within the classrooms with few provisions made for visits to the lab/studio or field projects. The number of courses featuring studio-based classes exceeds those featuring technical field projects (3 out of 48 courses). Technical visits are organized as part of project courses and only two compulsory courses. Only one elective course featured a guest speaker (Table 5).

Table 5

Teaching Methods and Course Types

	In-Class Lecture		Laboratory Work		Excursion		Keynote	
	Frequency	Percent	Frequency	Percent	Frequency	Percent	Frequency	Percent
Studio Project	3	6.3	3	6.3	3	6.3	0	0
Compulsory Course	22	45.8	0	0	2	4.2	0	0
Elective Course	23	47.9	0	0	0	0	1	2.1
Total	48	100.0	3	6.3	3	10.5	1	2.1

**Percentages calculated for 48 courses.*

Evaluation Methods

The total percentages of the evaluation methods for all of the 48 courses that had been examined were as follows: homework (66.7%), seminar (22.9%), project (6.3%), application (12.5%), and exam (100%). Almost all courses featured written exams as well as homework, which was twice more widespread practice in compulsory courses than in elective courses. Approximately 10% of courses, compulsory and elective alike, feature seminars that were not found among any project courses. On the contrary, it was found that all project courses, as well as 6% of compulsory courses, were applied.

Not only are projects constituting the primary output of planning studios, but they

also serve as the core means of evaluating students. In addition to being offered by design faculties, the students are generally required to produce two- and three-dimensional drawings alongside their reports. It was found that such courses are generally few in number (n=3, 6.3%) within the greater scheme of whole planning programs, and students were assessed based on their output.

(3) *Learning content: What kinds of sustainability themes and learning content are most frequently taught in URP undergraduate programs in Turkey?*

The learning content was probed under two sub-headings:

a) Themes that hold the most place in the aims and contents of sustainability-focused and sustainability-related courses.

b) Recommended textbooks. These were relied on to find whatever resources were used in sustainability-focused and sustainability-related courses.

a) *Themes*

It is important to review the themes to examine how sustainability is taught in Turkey. In this context, the course objectives and contents of 48 courses were reviewed according to their syllabuses, and a consensus was used to ensure validity and reliability. Each course syllabus was analyzed based on the code and theme list (Colantonio, 2010; Heymans et al., 2019), and inquiries were made on the list created, again, based on consensus. The list was modified by the researchers' findings and revised based on the course syllabus content. The inquiry showed that sustainability was taught through 23 different themes (Figure 2), including economic, environmental, and social contexts which are fundamental in URP education. The most frequently recurring themes included tourism (n=23) and conservation (n=18), alongside ecology, planning, urban ecology, and environmental issues. It was found that themes such as urban and sustainable planning, improvement, and development all had roots in the theme of sustainability. In contrast, it was also noticed that economy/economics, while important, was barely touched upon.

The identified main themes included ecology, planning, environment, conservation, sustainability, tourism, and system (Figure 2). Similar themes were evaluated under more than one main code depending on that theme's content, which in turn results from the multidisciplinary structure of planning education. For example, nature conservation had been included under both conservation and environment-based codes, and likewise, human settlements had been categorized under both planning and environment-based codes, etc.

Ecology	Urban Ecology, Landscape, Rural, Ecological Planning, Nature, Ecological Approaches, Ecological Settlements (Urban - Rural)
Planning	Human Settlements, Planning Theory, Ecological Planning, Sustainable Planning and Design, Environment Sensitive Planning, Urban Planning, Planning Process, Relationship Between Planning and Environment, Food Planning, Infrastructure Planning (Water Management, Transportation)
Environment	Human Settlements, Environmental Problems, Nature Conservation, Environment Sensitive Planning, Environmental Concept, Relationship Between Human and Environment, Natural Environment, Physical Environment
Conservation	Urban Conservation, Conservation Theory and Approaches, Nature Conservation, Regulations
Sustainability	Sustainability, Sustainable Development, Sustainable City, Sustainable Planning Approaches, Sustainability Indicators, Sustainable Tourism
Tourism	Tourism Types (Alternative, Sustainable, Massive, Integrated, etc.), Tourism Planning, Tourism Economy
System	Ecosystem, Settlement Systems, Transportation Systems, Analysis Systems, Planning Systems

Figure 2. Result of the Content Analysis Codes and Theme

b) Textbooks

A total of 495 different resources were examined, excluding articles, notices, and Web-based sources. Repeating resources were grouped as either being directly or indirectly tied to sustainability. Book-based resources were listed alphabetically and entered into a Microsoft Excel spreadsheet. It was observed that *sustainability-focused* courses generally used any one of 3 different textbooks, whereas *sustainability-related* used any one of 8 different textbooks, thus yielding a total of 11 separate textbooks, most of which focused either on environmental and ecological themes or planning

theory and techniques. The following list includes the most frequently used textbooks in *sustainability-focused* and *sustainability-related* courses taught in Turkey:

Sustainability-Focused Textbooks

- Beatley, Timothy. (1994). *Ethical Land Use: Principles of Policy and Planning*, Baltimore: Johns Hopkins University Press.
- Kislalioglu, M. & Berkes, F. (1997). *Cevre ve Ekoloji* [translation: *Environment and Ecology*], Remzi Kitabevi, Istanbul.
- Ozdemir, S. S., Ozdemir Sari, O. B., & Uzun, N. (2017). *Kent Planlama* [translation: *Urban Planning*], Imge Yayınevi, Ankara.

Sustainability-Related Textbooks

- Blakely, E.J. (1994). *Planning Local Economic Development*, Second Edition, Sage, ISBN: 0-8039-5209-0
- LeGates, R.T. & Stoud F. (ed.) (1996). *The City Reader*, London: Routledge.
- Stein, J.M. (2001). *Classic Readings in Urban Planning*, Mc Graw Hill.
- Ahunbay, Z. (1999). *Tarihi Cevre Koruma ve Restorasyon* [translation: *Historic Environmental Protection and Restoration*], YEM Yayın, Istanbul.
- Atalık, G. (1995). *Kent Planlamasi Teknikleri* [translation *Urban Planning Techniques*, *Urban Planning Techniques*], ITU Mimarlık Fakültesi Baskı Atelyesi, ISBN: 975-561-032-4, Istanbul.
- Healey, P. (2006). *Collaborative planning, shaping places in fragmented societies*, Macmillan Press Ltd., Houndmills, 43-58.
- Keles, R. (2005). *Cevre Politikasi* [translation: *Environmental policy*], Imge Kitabevi, Ankara, Turkey.
- Keles, R. & Hamamci, C. (1993). *Cevre bilim* [translation: *Environmental science*], Imge Kitabevi, Ankara, Turkey.

Discussion, Conclusion, and Recommendations

It is imperative that universities integrate sustainability into their various programs to counter ever-growing global environmental issues. They need to be made a central part of URP undergraduate programs so that future generations of developers will be equipped, not only to solve the many problems currently plagued by cities, but also to generate cities with systematic and sustainable living environments, and to handle sustainability within a much broader context. The present study has examined the positive and negative aspects of the status of this important subject in Turkey. This paper aims to encourage universities to place more importance on sustainability and to feature it more extensively in their curricula.

Studies of this or a similar nature need to classify, measure, and transform data into systematic information in order to examine the positive and negative aspects of the status of a particular subject. The present study has achieved this goal, using content analysis to code, conceptualize, and categorize the data as a means of arriving at valid and reproducible results.

It was found in this study that, except for one undergraduate program, universities in Turkey provide sustainability-related courses in URP education. The findings were based on data collected from 48 courses in 20 different universities. During the first stage of our research, the level of inclusion of the concept of sustainability, types of courses, and the profiles of the instructors were assessed. Sustainability-focused courses constitute nearly one-fourth of courses investigated. It was also found that these courses lose their compulsory status with each passing university year and they are generally instructed by lower-ranked academics.

Based on the interpretations, it was seen that courses are primarily taught through lectures, with few accommodating visitations by guest speakers. The findings also show that lecturers generally assess students through homework, seminars, projects, applications, and/or exams, with written exams being a common denominator across all courses, while the latter is more prevalent in elective courses and around half of all compulsory courses.

Sustainability as a theme generally recurred through the themes of tourism and conservation. It was also found that ecology was given priority in courses focused on ecological planning, urban ecology, and environmental issues. From what we were able to determine, teaching resources were primarily national as opposed to foreign, and largely focused on environmental and ecological issues as well as planning theory and techniques.

When emphasizing real-world problems such as sustainability in the field of planning, educators need to focus on having students acquire analytical/critical thinking, cognitive, interdisciplinary, communication, and collaboration skills (Lang, 1983; Freestone et al., 2006; Frank & Silver, 2018). This could be achieved with academics and programs providing such courses in a multidisciplinary context. Despite this, it was found that courses were generally delivered through conventional methods such as classic exams and homework. Other studies acknowledge that educators are uncertain about how to integrate sustainability into planning education (Pijawka et al., 2013). Its multidisciplinary nature requires that it be taught by a wide range of experts from different occupations. Moreover, it was noted that the number, as well as the content of elective courses, are currently insufficient. Thus, they need to multiply in terms of volume and better integration with planning. We also suggest that educators should take measures to offer their students more up-to-date resources, both domestic and foreign, that would better equip them to handle the big changes and hardships faced by 21st-century urbanization and planning paradigms (Gunay et al., 2017). The findings of our study show that sustainability-related courses are normally offered as elective courses to students who are already equipped with the fundamental knowledge base and skills of planning. However, planning programs need to

complement these sustainability-related courses with compulsory courses as well in order to reinforce students' awareness of sustainability.

In terms of limitations in the present study, there is a lack of a national Turkish-based course syllabuses database which poses a major obstacle for studies like this, because not only does it inhibit research, but also it inhibits students in terms of restricting them from broader access to pertinent courses and program information. Another constraint is the lack of available studies examining the relationship between planning education and sustainability. We hypothesize that this is due to limited pedagogical outcomes as well as sustainability's general lack of presence. This type of study and other studies need to delve deeper into this theme to develop different techniques and produce studies of a more comparative nature. In this study, the findings regarding how sustainability is currently covered in planning education programs across Turkey have been systematically presented with the aim that this will better contribute to overall curriculum development.

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Türkiye’de Şehir ve Bölge Planlama Eğitiminde Sürdürülebilirliğin Yeri

Atf:

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Özet

Problem Durumu: Sürdürülebilirlik araştırmalarında son yıllarda özellikle yüksek öğretim kurumlarındaki ilgili programlara konunun nasıl ve ne kapsamda dahil edilebileceği konuları tartışılmaktadır. Konuya ilişkin çalışmalar sürdürülebilirlik ve planlama eğitimi ve yüksek öğretim kurumlarında sürdürülebilirliğin yeri başlıkları altında toplanabilir. Sürdürülebilirlik eğitimi üzerine yapılan çalışmalar; farklı düzeylerdeki eğitim kurumlarındaki derslerde sürdürülebilirliğin nasıl ele alındığı, eğitim kurumlarında sürdürülebilirlik uygulamalarının neler olduğu vb. konuları kapsamaktadır. Planlama eğitimine ilişkin çalışmalar; Planlama eğitiminde teknolojinin yeri, planlama eğitiminin geleceği, planlama eğitiminde öğrenci deneyimleri, stüdyo temelli eğitim yaklaşımı, seçmeli derslerin öğrencilerin profesyonel gelişimindeki yeri gibi konulara odaklanmaktadır.

Yüksek öğretim kurumlarında sürdürülebilirlik ile ilgili çalışmalarda genellikle derslerin içeriklerine, işleyiş biçimlerine, değerlendirme yöntemlerine, ders bilgi paketi geliştirmeye yönelik konular ele alınmıştır. Son olarak yukarıda bahsedilen konuların ara kesitinde yer alan ve bu çalışmanın temelini oluşturan şehir ve bölge planlama eğitiminde sürdürülebilirliğin yeri ve kapsamı üzerine yapılan çalışmaların henüz oldukça yeni ve sınırlı sayıda olduğu görülmüştür.

Araştırmanın Amacı: Bu çalışmanın amacı; Türkiye’de Şehir ve Bölge Planlama (ŞBP) lisans eğitimi veren yüksek öğretim kurumlarında sürdürülebilirlik konusunun mevcut durumunun ortaya konulmasıdır. Bu amaca yönelik olarak aşağıdaki araştırma sorularına cevap aranmıştır; (1) Türkiye’de ŞBP lisans programlarında sürdürülebilirlik derslerinin mevcut durumu nedir? (2) Türkiye’de ŞBP lisans programlarında sürdürülebilirlik konusundaki dersler için kullanılan pedagojik yöntemler nelerdir? (3) Türkiye’de ŞBP lisans programlarında sürdürülebilirlikle ilgili en çok ele alınan konular/temalar ve önerilen kaynaklar nelerdir?

Araştırmanın Yöntemi: Bu çalışmada nitel araştırma yöntem ve teknikleri kullanılmıştır. Veri toplama doküman incelemesi yapılmış ve veri analizinde ise içerik ve betimsel analiz yöntemleri bir arada kullanılmıştır. Türkiye’de aktif olarak ŞBP eğitimi veren üniversitelerde lisans düzeyinde sürdürülebilirlik ile ilgili verilen dersler tespit

edilmiştir. Verilerin yorumlanması aşamasında son bir elemeye gidilerek 48 dersin sürdürülebilirlikle ilişkileri, ders bilgi paketlerinde yapılan sorgulamalarla incelenmiştir. İnceleme sürdürülebilirliğin mevcut durumuna ilişkin daha sağlıklı bir sorgulama amacıyla yapılmıştır. Dersler sürdürülebilirlik-odaklı ve sürdürülebilirlikle-ilişkili olmak üzere iki gruba ayrılmıştır. Çalışmanın bulguları, 48 ders föyünde yapılan sorgulamalara dayanmaktadır. Ders içeriği, işleyişi ve derslerin değerlendirilmesi hakkında bilgiler içeren ders bilgi paketlerindeki veriler içerik analizi yöntemi ile sistematik bir biçimde sınıflandırılarak sorgulanmıştır.

Araştırmanın Bulguları: Türkiye’de lisans düzeyinde ŞBP eğitimi veren üniversitelerden biri hariç tamamında sürdürülebilirlikle ilgili derslere rastlanmıştır. Bulguların ilk aşamasında sürdürülebilirlik kavramını içerme düzeyleri, ders türleri, eğitmen profiline ilişkin saptamalar yapılmıştır. Sürdürülebilirliği içerme düzeylerine göre sürdürülebilirlik odaklı dersler ilişkili olan derslerin neredeyse dörtte biri sayıdadır. Ders türleri ders düzeyleri ile ilişkilendirildiğinde ilk yıllarda sürdürülebilirlikle ilgili derslerin çoğunlukla zorunlu olduğu ve son yılda ise öğrenci tercihine bağlı olan seçmeli dersler olduğu görülmektedir. Bunun yanı sıra sürdürülebilirlik konularının daha çok uzmanlığının ilk aşamalarında olan akademisyenler tarafından verildiği tespit edilmiştir. Dersler en yaygın eğitim metodu olan sınıf ortamında yüz yüze ders eğitim modeli ile sürdürülmektedir. Değerlendirme yöntemi olarak yazılı sınav, ders türlerinin tamamında kullanılmakla birlikte ödevin zorunlu derslerin yaklaşık yarısında seçmeli derslerde ise oldukça yüksek oranda kullanıldığı görülmektedir. Ders içeriklerindeki sürdürülebilirliğe ilişkin konular en çok tekrarlanan kavramlar turizm ve korumadır. Bunun yanı sıra ekoloji ile ilişkili kavramlar olan ekolojik planlama, kent ekolojisi, çevre sorunu gibi konulara değinildiği saptanmıştır. Buna paralel olarak kaynakların daha çok çevre ve ekolojik konular ile planlama teori ve tekniklerine odaklanan içerikte daha çok yerli kitaplar olduğu görülmüştür.

Araştırmanın Sonuçları ve Öneriler: Sürdürülebilirlik alanında derinlemesine bilgi almak isteyen öğrencilere sunulan seçmeli derslerin sayısı ve içeriği yetersizdir. Bu bağlamda, seçmeli derslerin sayısı artırılmalı ve içerikleri planlamayla ilişkilendirilmelidir. Buna ek olarak yazın alanındaki güncel yerli ve yabancı kaynaklar ders kapsamında öğrencilere önerilmelidir. Çalışma sonuçları göstermektedir ki temel bilgi ve becerilerle donatılan öğrenciler, son sınıfa geldiklerinde sürdürülebilirlikle ilgili konulara ilişkin dersler seçmeli olarak tercihlerine bırakılmaktadır. Belirli bir mesleki bakış açısı kazanan bu öğrencilere, sürdürülebilirlik bilincinin pekiştirilmesi için konuya ilişkin zorunlu dersler müfredata dahil edilmelidir.

Türkiye genelinde derslerin bilgi paketi kapsamında benzer bir veri tabanının bulunmaması, buna ek olarak bazı okullarda tamamen eksik oluşu bu tür çalışmaların kapsamını sınırlandırmaktadır. Bilgi paketine erişimdeki bu eksiklik sadece araştırmacılar için değil, bu konu hakkında bilgisini artırmak isteyen öğrencilerin de dersin içeriği ve işleyişine yönelik fikir sahibi olmalarına engel olmaktadır.

Planlama eğitimi ve sürdürülebilirlik arasındaki ilişkiyi inceleyen çalışmaların sayıca az oluşu çalışmanın bir diğer kısıtıdır. Konunun henüz yeteri kadar yaygınlaşmamış olması ve pedagojik çıktılarının yetersizliği, araştırma yöntemlerinin sınırlı olmasına neden olduğu düşünülebilir. Konuya yönelik çalışmaların sayıca artması, farklı

tekniklerin geliştirilmesine ve karşılaştırmalı çalışmalara imkân sunar. Bu çalışmada Türkiye genelinde sürdürülebilirliğin planlama okullarında ne kapsamda verildiğine ilişkin bulgular sistematik bir biçimde sunulmuştur. Bu bağlamda müfredat geliştirmeye katkı sunar bir çalışma niteliğindedir.

Anahtar Sözcükler: Şehir ve bölge planlama lisans eğitimi, sürdürülebilirlik, eğitim metotları, içerik analizi, ders içeriği.