

## Chapter 59

# Comparison of Two Classrooms: Environmental Knowledge in Urban and Regional Planning Education

**Barış Ergen**  
*Bozok University, Turkey*

### ABSTRACT

*This chapter investigates how students attending environmental science classes in the Department of Urban and Regional Planning at Bozok University in 2010-2011 and 2011-2012 fall semesters learn concepts related to environmental science through a comparison of two different classes, using the Cosine Similarity Measure (CSM) method. The study demonstrates that the students lack the necessary knowledge about the concepts used in urban and regional planning literature and international conventions.*

### INTRODUCTION

Higher education in urban planning is the form of spatial planning situated between social and technical expertise, and focuses on interaction between physical design, social, political and economic sciences (Dimitrova, 2013). Yigitcanlar (2011) states that in an era of globalization urban and regional planners accommodate themselves to rapidly changing economic, social and environmental conditions and urban and planning education plays fundamental role in preparing spatial planners to such physical, social, economic and environmental problems.

According to Wang, 2009, pp. 2; Kirschner, Strijbos, Kreijns, & Beers, 2004, “An education system is a unique combination of pedagogical, social and technological components.” Urban and Regional Planning is an applied science whose system of education requires skills and abilities besides pedagogical, social and technological factors. Environmental science and environmental education are the key factors for sustainable urban planning. Environmental science and environmental education in urban planning defines a process which has many different aspects. This process consists of family, indigenous factors, education before university and university education. This

DOI: 10.4018/978-1-4666-7363-2.ch059

chapter analyzes how and where students acquire environmental education from in undergraduate program of department of urban and regional planning in environmental science course It also looks at which subjects the students are weak in, using comparison as a method.

*Environmental Education possesses a three-dimensional character as it is internationally accepted (Tsekos, Christoforidou, & Tsekos, 2012, pp. 112; Palmer, 1998). More specifically, Environmental Education is divided into three forms: (1) Environmental Education about the environment; (2) Environmental Education in or from the environment; and (3) Environmental Education for the environment. (Tsekos, Christoforidou, & Tsekos, 2012, pp. 112)*

The main aim of this study is to contribute to the analysis of the convergence arising from the increase in globalization and cooperation in higher education and the removal of borders between countries. Another important goal is to research the means of information for students who select the environmental science course through numerical methods. It is seen that the Bologna framework has become crucial to increase cooperation between universities and the mobility of students, academic staff and researchers within the frame of exchange programs. The Bologna framework is an important higher education policy for universities in the globalizing world. When the Bologna process is analyzed, the following main ideas come to the front:

1. Nations will work toward a system of easily readable and comparable degrees (bachelor's, master's, and doctoral), including implementation of the Diploma Supplement;
2. The institutional structure will consist of two separate and distinct layers (undergraduate and graduate);
3. A common system of academic credits;
4. Co-operation in quality assurance;

5. Mobility of students, teachers, and researchers, etc.;
6. The European dimension of higher education;
7. Promote lifelong learning;
8. Involvement of students;
9. Promote the attractiveness of the European Higher Education Area (EHEA) to the rest of the world;
10. Doctoral studies and the synergy between EHEA and the European Research Area. (Begalla, 2013, pp. 66-67; Reinalda & Kulesza, 2006, pp. 9)

Although Heinze & Knill (2008) note that we have a limited amount of knowledge about the effects and influences of the Bologna period on the national education policy, Watson (2009) defines the Bologna process as the most prominent higher education convergence process in terms of the increasing trend of supra-national higher education process, quality assurance on an international scale, national cooperation, staff and student mobility and recognition of education programs. At the same time, Lučin & Prijić-Samaržija (2011) noted that the Bologna Process has been a major reform for national the education strategy of Croatia in the last decade. Turkey became a party to the Bologna Process in 2001 as a candidate to the European Union. The national reports prepared by the Council of Higher Education in Turkey in 2003-2005, 2005-2007 and 2007-2009 played an important role in the formation of the education policies of universities. The Bologna process has gained momentum in the last years and it is an important national and international convergence process.

In Turkey, the Mevlana Exchange Program has been set to provide mobility of students and staff to countries out of the European Union. Thus, it is targeted to increase cooperation between international education programs. Also, the Farabi programs are applied in Turkey for the exchange of students in Turkey. However, the Bologna process

17 more pages are available in the full version of this document, which may be purchased using the "Add to Cart" button on the publisher's webpage:

[www.igi-global.com/chapter/comparison-of-two-classrooms/121891](http://www.igi-global.com/chapter/comparison-of-two-classrooms/121891)

## Related Content

---

### The Role of Authentic Science Research and Education Outreach in Increasing Community Resilience: Case Studies Using Informal Education to Address Ocean Acidification and Healthy Soils

Cynthia Hall, Regina Easley, Joniqua Howard and Trina Halfhide (2015). *STEM Education: Concepts, Methodologies, Tools, and Applications* (pp. 946-966).

[www.irma-international.org/chapter/the-role-of-authentic-science-research-and-education-outreach-in-increasing-community-resilience/121883](http://www.irma-international.org/chapter/the-role-of-authentic-science-research-and-education-outreach-in-increasing-community-resilience/121883)

### Cross-Curricular Nature of Evolutionary Biology: A Call, Perceptions, and Teaching Approaches

María Martín-Peciña (2023). *Handbook of Research on Interdisciplinarity Between Science and Mathematics in Education* (pp. 62-108).

[www.irma-international.org/chapter/cross-curricular-nature-of-evolutionary-biology/317903](http://www.irma-international.org/chapter/cross-curricular-nature-of-evolutionary-biology/317903)

### Collaboration Not Competition: International Education Expanding Perspectives on Learning and Workforce Articulation

Cynthia J. Benton, Orvil L. White and Susan K. Stratton (2015). *STEM Education: Concepts, Methodologies, Tools, and Applications* (pp. 742-759).

[www.irma-international.org/chapter/collaboration-not-competition/121871](http://www.irma-international.org/chapter/collaboration-not-competition/121871)

### Opening Both Eyes: Gaining an Integrated Perspective of Geology and Biology

Renee M. Clary and James H. Wandersee (2015). *STEM Education: Concepts, Methodologies, Tools, and Applications* (pp. 1378-1396).

[www.irma-international.org/chapter/opening-both-eyes/121908](http://www.irma-international.org/chapter/opening-both-eyes/121908)

### The Role of Executive Function and Self-Regulation in the Development of Computational Thinking

Elizabeth Kazakoff Myers (2021). *Teaching Computational Thinking and Coding to Young Children* (pp. 64-83).

[www.irma-international.org/chapter/the-role-of-executive-function-and-self-regulation-in-the-development-of-computational-thinking/286044](http://www.irma-international.org/chapter/the-role-of-executive-function-and-self-regulation-in-the-development-of-computational-thinking/286044)