Investigation of Prospective Teachers’ Approaches to Learning in Biology and Ecology

Abstract

The aim of this study was to investigate Turkish college students’ learning approach regarding biology and ecology classes along with the effects of some selected variables (gender, teacher, year of study, grade in biology and grade in ecology) on students’ learning approach. The Turkish version of the Learning Approach Questionnaire was utilized for gathering data. The sample consisted of 173 female and 238 male (411) university students from two different departments at three different universities in Turkey. In this investigation, no statistically significant differences in terms of gender, teacher, and year of study, grade in biology and grade in ecology were found. Inferential statistics, mainly ANOVA, were used for testing the effects of selected variables on their learning approach.

Introduction

Teaching and learning processes are complex phenomena which cannot be explained by one or more reasons/factors. For years, teachers, administrators, and researchers have done research into teaching and learning and examined a variety of approaches to teaching and learning (Chamorro-Premuzic, Furnham 2009; Yang, Tsai, 2010). Referring to White's (2001) documents on the revolution in research on science teaching after World War II, Shapiro (2004) states that “the emerging body of research on and insight into learning fuelled the development of shift from behaviorism to cognition as a new dominant model of learning” (p.2). However, the shift to cognitive perspectives, such as constructivist approaches, did not end here. Shapiro also discusses the increased interest among researchers