Analyzing High School Students’ Attitudes towards Biology Course in Different Variables

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SYNOPSIS

INTRODUCTION

One of the most important aims of Science Education is to provide developments in affective domain for students. Learning in the affective domain includes changing of individuals’ values, beliefs and attitudes. One of the most important concepts that are affected in the affective domain is attitude. Attitudes are defined as “positive or negative attitude of an individual for an object, a situation or a fact” (Güney, 2000), but attitude is an affective variable which is difficult to define. “Attitude towards science”, which has been a subject of many studies in the recent years, can be defined as a combination of sense, belief and values towards an object that is a product of science, science class or an effect on science, public and scientists (Osborne, 2003). As it is known, Science includes physics, chemistry and biology. When the related literature is analyzed, it is seen that studies are divided into physics, chemistry and biology through studies which are done for the attitude towards Science in general.

PURPOSE OF THE STUDY

This research is done for determining high school students’ attitudes towards Biology course.

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METHODOLOGY

In the research, the descriptive survey method is used. Working group of the study is 1306 students who study in secondary educational institutions depended on Diyarbakır National Education Directorate in 2007-2008 Academic Year. Research data are summed up with “The attitude scale towards Biology courses” developed by Arıçak & İlgaç (2007). Cronbach-Alpha reliability coefficient of the scale is figured out as 0.93. The data are analyzed by using the techniques of descriptive statistics, analysis of inner consistency reliability coefficient (Cronbach-Alpha), independent groups t-test, one-way ANOVA and test of Tukey HSD.

FINDINGS and DISCUSSION

According to the overall results, students’ attitude points towards Biology courses are determined at a medium level. It is expressed that attitude points of students towards Biology Course are on a positive level in the studies which are done (Erdemir & Bakırcı, 2009; Prokop, Tuncer & Chuda, 2007; Trumper, 2006). The attitude is analyzed in the concept of the affective domain, so if attitudes are positive, students can be happy and successful while they are studying in the Biology Course.

The most spoken variable about studies of attitude towards Science and Biology, Chemistry, Physics that are covered in Science is gender. The difference between female and male students’ attitude points towards Biology courses shows a statistically meaningful difference in favor of female students (Çevik & Ekici, 2008; Barram-Tsabari et al., 2006; Dawson, 2000; Jones, Howe & Rua, 2000; Keeves & Kotte, 1990; Prokop, Tuncer, & Chuda, 2007; Prokop, Prokop & Tunnicliffe, 2007; Ramsden, 1998). It is seen that the result of this research is compatible with the results of other researches in the literature. In addition to that, attitude of male students towards Science varies in relation to female students, but attitude of the female students towards Biology which is a part of Science varies in relation to male students. In conclusion, determining this difference is an important result for this research.

A meaningful difference between students’ attitudes towards Biology courses related to the educational institutions in which they are educated is found in favor of Anatolian High Schools in the result of a comparison between Anatolian High Schools and Classic High Schools. Whether high schools that are opened in different names with different aims depend on this situation or not, the discussion from the point of view of applying Biology Course program, can be perceived as an important result.

A meaningful difference between students’ attitudes towards Biology courses according to the classes, which students study in, is found in favor of 2nd classes in the result of a comparison between 1st and 2nd classes; and in favour of 1st classes between 1st and 3rd classes. Çevik & Ekici (2008) stress that there is a meaningful difference in favor of 3rd classes in their research. It can be thought that the difference in the research is because of qualities of the research. An important result is that attitude points of the students show a meaningful difference according to the classes that students are enrolled.

A statistically meaningful difference could not be found between students’ attitude points towards Biology courses according to the primary schools from which students graduated.

There is a meaningful difference between students’ attitude points towards Biology courses according to the overall success in their high schools. It is understood that there is a meaningful difference between the students whose successes are at high and medium-low levels; moreover, there is a meaningful difference between students whose successes are at
medium and low levels. As it is seen in this result, successful students love Biology Course much more than others.

There is a meaningful difference between students’ attitude points towards Biology courses according to the monthly incomes of students’ families. It is understood that there is a meaningful difference in favor of the groups whose incomes are low between the groups whose incomes are between 500/1000 Turkish Lira and more than 1500 Turkish Lira; also between 1000/1500 Turkish Lira and more than 1500 Turkish Lira. It is also stressed that attitudes of students depend on salaries of families in some researches (Miller-White, 1999). On the other hand, attitudes of students do not depend on salaries of families in some researches (Çevik & Ekici, 2008; Harmmrich, 1998; Saracaloğlu, Serin & Bozkurt, 2001).

CONCLUSION

In conclusion, high school students’ attitudes towards Biology Course depend on different variables. As understood in the related research, attitudes towards Biology Course can be measured with different variables and in different times as it is detailed in studies.

REFERENCES


