Evaluating Primary School Students’ Motivation Levels in Science Education In Terms Of Gender and Class Variables

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Summary

Problem Statement
Motivation, as in all other subjects, is a significant factor for academic achievement in science education. This significance has risen with the appearance of student-centred approaches. Motivation defined in short as the drive to activate learning behaviours has a critical role in self-learning. Helping learners attain the instructional goals, motivation can be handled in two categories as intrinsic and extrinsic. However, intrinsic motivation in which individuals take their own responsibilities and have inherent inclination to learn is of great importance in terms of modern education approaches. Students who have intrinsic motivation are called as ones owning self-efficacy. Motivation includes sub-dimensions like self-efficacy, learning strategies and aims. Considering science education with subject matter, motivating students is difficult but is necessary. Moreover, there are so many researches that indicate the positive effect of motivation on learning activity. Students’ affective domains are to be addressed in order to increase their motivation. Behaviours and attitudes of teachers and atmosphere of learning environment are also important. Motivation in science teaching is affected from such variables as individual qualifications, instructional methods and techniques, learning environment and education program. As a result, with necessary student-centred arrangements students can be helped to increase their motivation. A high-motivated student finds lesson entertaining, is interested in lesson, has learning desire, believes that success is attained by means of efforts and takes part actively in the learning process. Determining students’ views towards motivation that is crucial for the success of science education is significant. Because determining their views are the first step for increasing motivation.

Aim of the Study
The aim of this study is determine primary students’ motivational levels towards science education. Furthermore, it is aimed to examine students’ views towards science education in terms of gender and class variables.

Methods
In this descriptive research, survey method has been used. The population of the study includes students of seven public primary schools in the city of Elazig during the academic year of 2011–2012, and the sample of the study includes 505 students selected randomly in this population. The likert-type items in the scale are analysed through arithmetic mean and standard deviation values. In the analysis of students’ views in terms of variables, Anova and “t-test” are carried out.

Findings and Discussions
Students having participated in the research own high self-efficacy that is one of most the important dimensions of motivation in science education. It can be expected from students of such high self-efficacy to increase their academic achievement in science. Through the

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research, it is appeared that gender is a significant variable in motivation and female students have higher self-efficacy compared to male students in this sense. Another result is that self-efficacy factor of motivation changes in terms of class variable and self-efficacy levels of 4th grade students are higher than 8th grade.

It is determined in the research that students use learning strategies actively which is the other factor of motivation. It is useful for students in science education to have active strategies especially for their individual learning. From the research findings, it is understood that female students apply active strategies in discussions and in searching for additional sources more often than male students. In the subjects like “making relations between learning concepts and learning from mistakes”, students of 4th grade are seemed more willing than others (7th and 8th).

It is indicated in the research that students attribute great importance in science education which is another factor of motivation. This is highly crucial for students’ academic achievement. In this sense, female students are seemed to be more sensitive to problem solving and taking part in researches in science education than male students. On the other hand, it is understood that 4th grade students attribute greater importance to science education than 8th grade.

These are the reasons of students for participating in science education: for science; including exciting subjects, encouraging students to think; for students; being more successful than other students, being capable of discussing matters among others, attracting teacher’s attention, making others think her/him as clever and teacher’s using of different methods. Students’ views as “finding science topics exciting” indicate that the program has been prepared based on students’ interests and needs. But their participation in the lesson for “being more successful than other students” does not comply with new science and technology program that envisages collaboration instead of competition. From the research, it is found that male students are more sensitive to extrinsic reinforce than female students and 4th grade students are more competitive than 8th grade.