The Impact of Attitude towards Physics Lessons & Experiments of Fourth Year Students

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Although Physics is in every area in our life and facilitate our lives, national and international studies show that success in physics education is lower than other disciplines (Gok and Silay 2008, Dieck 1997; Rivard & Straw 2000, Mattern and Schau, 2002).

In physics education, various methods and strategies can be applied according to the content. Laboratory methods, which are mostly used methods that provide permanent learning, is an educational method encouraging mental activities and allowing students to work individually or in groups (Staeck 1995). Students improve their skills to better understand concepts, and adopt them in daily life as well as their personal skills and provide a positive attitude towards physics lessons (Algan 1999, Staecx 1995).

Learning Physics is a continuous process which is synonymous with the changing world conditions. Therefore, creativity in terms of learning media, in the continuously developing educational programs and identifying students’ attitude and behavior towards physics lessons and experiments are very important and instrumental for effective learning process. According to Hendrickson, attitudes are the best predictor for estimation of students’ success (Hendrickson, 1997). Activities must be planned, organized and implemented so that students may develop more positive attitudes (Pintruch, 1996). Whether attitudes occurring as part of a system of values and beliefs are positive or negative affects learning in a direct manner and influence future lives of individuals (Seferoglu, 2004; Sunbul et al, 2004)

Results of a research paper entitled “Attitude Towards Physics Lessons and Physical Experiments of the High School Students,” by Hasan Kaya and Ugur Boyuk showed that physics lesson being held in the classroom on the sole theoretical basis is one of the factors that influence attitude of the students towards these lessons in a negative manner. Thus, physical topics consisting of abstract concepts should be lectured in the student’s daily life together with simulation, animations and other videos to keep the attention of the students alive. Learning by discovery is better than passive listening, so it should be shown how to associate physical concepts with their daily life.

Therefore, daily Physics Lessons must constitute on integrated learning environment with hands-on laboratory measurements coupled with student problem-solving applied in Physics Lessons. In addition, physics teachers should spend more efforts to associate physics to technology and to daily life.

References:
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