

The right place to put the real life applications in the physics laboratory direction

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Abstract

Our initial goal of this research was to find an appropriate way to improve students' awareness of linking what they learn from the experiment with their real life experiences. From two years of this study, the first trial in 2008, modified physics laboratory directions were used with 18 second year physics students. The additional contents of real life applications were introduced as the prolog in the physics laboratory direction. Four out of twelve experiment directions were prepared to include this additional introduction. From our interview as a mean to evaluate the proposal, only 11% of students could explain but their answers disagreed with the examples of real life situations given within the experiment direction. This result made us realized that this was not only the matter of having or not having the application messages but also the matter of putting the messages in the right place. In the second semester of 2008 and the first semester of 2009, the second trial was again carried out. This time, the application contents were blended into the theoretical part which was found from our separate survey to be one of the most interesting parts for students. Again, four out of twelve experiment directions were prepared in this proposed style. The students' responses showed that about 72% of students could clearly describe the application message relevant to experiments given in the direction. In addition, this study employs the methodology of video analysis protocol for analyses students' interviews.

Keyword : laboratory direction, analysis protocols, physics laboratory

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