

A Context-rich, Photo-based On-line Testing to Assess College Students'
Science Learning

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Abstract

This study designed and developed a content-rich, photo-based multiple choice on-line test (abbreviated as CP-MCT) to assess whether the college students can apply the basic light concept to interpret daily light phenomena. One hundred college students volunteered to take the CP-MCT, and the results were statistically analyzed. The results and the educational implication were discussed. The CP-MCT improves some shortcoming of the traditional MCT and still keeps the advantages of the traditional MCT in terms of cost and time efficiency and the ease to administer. Moreover, with the free website (<http://www.my3q.com>), it waived the worry of school teachers about techniques of implementing an on-line testing. The idea of CP-MCT can be applied in the pre-service, and in-service teacher education to train the pre-service and in-service teachers design and develop the CP-MCT to assess their students' science learning.