

Chemistry Education Research on Performance Evaluation in Determining the Student's Academic Success

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Abstract

This study involves the suggestion of an alternative evaluation methodology to the traditional evaluation methodologies to be utilized in the evaluation of acquisitions that students are required to attain. The unit containing "Mixtures" was selected for the administration of the study over 98 students aged 14-15 and studying at Grade 9. Following the teaching of the topic, performance evaluation, which consists of the assessment of the process and the result, was applied as an alternative to the traditional evaluation methodologies. Students were provided with the activity content together with information regarding five stages that would guide students during the completion of the activity. With the aim of assessing and evaluating the student activities, a detailed chart of measures was prepared. This evaluation scale displayed the fields, where student performances could be evaluated. Student performances were evaluated using a 3-point Likert-type scale. Pearson's correlation coefficient analysis was utilized on SPSS in order to assess the relationship between the activity application stages. It was found that the stages students followed during the course of the study were pair wise correlated. It was also concluded that students, who managed to accomplish the planning stage accurately, also completed the following stages successfully. This study enabled teachers to evaluate their students in terms of connecting chemistry topics with daily life experiences as well as coming to conclusions and attaining scientific studying skills. It is also supposed that this study would contribute to chemistry teachers by providing them an alternative experience in evaluating their students.

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