# The Influence of the Implementation of Technology based Authentic Assessment in the Basics of Analytical Chemistry Lecture on Critical Thinking Ability, Learning Motivation, and Adversity Quotient of Students

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ABSTRACT

The Covid-19 pandemic has made the student learning environment that was originally offline become online is one of the challenges for educators, not least in the Chemistry Study Program, Faculty of Mathematics and Natural Sciences, UNY. In addition, currently students need to be equipped with 4C skills, namely creativity, critical thinking, communication, and collaboration. To optimize this ability, a serious effort is needed from educators, one of which is by applying technology-based authentic assessment. This assessment model was chosen because it is able to collect information about the development and achievement of learning carried out by students through various techniques that are able to express, prove or show precisely that the learning objectives have been truly mastered and achieved. In this study, the implementation of technology based authentic assessment will be carried out in online lectures on the Basics of Analytical Chemistry which are reviewed for their influence on critical thinking skills, learning motivation and adversity quotient.

The population of this research is Chemistry Study Program students who take the Basics of Analytical Chemistry course in the even semester of 2020/2021. The design of this study was pre-experimental with a one group pretest-posttest study design. The sampling technique used is convenient sampling. The research instruments used include authentic assessment assessment sheets, critical thinking assessment rubrics, motivation questionnaires and student adversity quotients. Data is collected online through BeSmart LMS, Google Classroom and Google Forms. After the data was collected, the analysis was carried out using the Wilcoxon Test in the SPSS 21.0 program. The results showed that there were differences in students' critical thinking skills, motivation and AQ before and after the implementation of Technology based Authentic Assessment. However, descriptively it is known that students' motivation and AQ decreased with a negative n-gain value.

Kata Kunci: *Technology based Authentic Assessment, adversity quotient.*