



1 **Analysis of Critical Thinking Skills of Middle School Students on Environmental Pollution Materials**

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ABSTRACT

The ability that should be possessed by students is not only limited to learning outcomes by receiving knowledge. Critical thinking skills need to be a provision to face the demands of the 21st century. Science is a subject that can not be separated from the critical thinking skills. One of the scientific materials is environmental pollution. Research has been carried out that aims to determine the students' initial critical thinking skills. The subjects used in the study were students of Junior High School Plus Nurul Hikmah. This type of research is descriptive method. The data collection instrument used a test. The results showed that the average critical thinking skillsof students was low category. The achievement of the indicator elementary clarification scored 43% in the medium category, while the indicator the basis for the decision scored 39% in the low category. The achievement of the indicator inference obtained 41% in the medium category. The indicator advances clarification scored 43% in the medium category, while the indicator supposition and integration scored 29% in the low category. In general, category for students critical thinking skills in all indicators are low. In general, criteria for students critical thinking skills in all indicators are low.

INTRODUCTION

Science and technology are experiencing very significant developments causing a lot of competition in several aspects of life, including the education aspect. Efforts to address these conditions require a quality education process. The education sector should be able to educate students so that they can develop according to their times. This means providing provisions for students not from the experience of each teacher, but according to the aspects that students need in the future (Syahrul et al., 2021). This is intended so that students can participate in society constructively and productively in the future, especially the various kinds of demands in the 21st century.

In the 21st century, there were significant changes and developments, which is often referred to as the era of the industrial revolution 4.0. This change in situation and conditions requires the readiness of qualified Human Resources (HR) so that they can adapt and be able to compete on an international scale. The success of a country in responding to the industrial revolution 4.0 cannot be separated from the role of quality teachers in educational institutions. Education in the revolution era 4.0 is a response to the demands of the revolution marked by the alignment between technology and humans to create new opportunities with new innovations and creativity that continues to grow (Rahman & Nuryana, 2019). Innovation is also able to disrupt existing elements and even replace existing technology. To keep up with technological developments, quality human resources are needed. Based on this, to be able to have quality human resources, quality education is needed (Suciono et al., 2021). The goal of education in the 21st century is expected to be able to obtain the output of

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