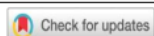




1 The Problem-Solving Skills Profile of Tsanawiyah Islamic School Students in the Vibration, Wave, and Sound Learning Materials

Mercury Nirwana^{1*}, Mohamad Nur², Budi Jatmiko³
^{1,2,3} Postgraduate Program, Universitas Negeri Surabaya, Indonesia



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ABSTRACT

The purpose of this study is to determine the profile of problem-solving instruments which applied in Tsanawiyah Islamic School on vibration, waves, and sound learning materials based on the expert validation assessment and student's responses. This study used a pre-experimental design method, namely a one-shot case study and it was implemented in Tsanawiyah Islamic School. The sampling technique used purposive sampling using one class. Data collections used problem-solving skills instrument. The expert validation results showed that all of the instrument tests were very valid and it was declared fit for use. Student's responses from 15 questions were valid because the instrument tests have difficulty level with medium category, although there was one number of the question has difficult category. The distinguishing power showed a good and a very good category although two numbers of questions were less categories. The problem-solving skills profile in Tsanawiyah Islamic School showed a good category in the expert validation nor although student's responses although there was a shortage. The limitation of the profile problem solving skills was hindsight from expert validation and students responses. The future research must be better and it can use appropriate learning model for this research like Model SEA-MEA (Self Efficacy Academic-Means Ends Analysis).

INTRODUCTION

16 Problem-solving skills are one of the thinking skills which needed in the 21st century (Batlolona, 2018). Problem solving skills involve intellectual process of students to connect the old knowledge with the new knowledge to get problem solving (Arifuddin, 2017). Problem-solving skills use integrated thinking skills and basis of relevant knowledge (Nurhairani & Dara, 2018). Students apply the knowledge and abilities to achieve goals in problem solving (Setyarini, 2021). Students must be used their experiences to solve problems (Tawfik, 2020). Students can get successful problem-solving when students have metacognitive experiences (Sengul, 2012). The habit of problem-solving in daily life is the achievement which compared to learning motivation (Chen, 2020). Problem-solving skills of students can measure by connecting information and testing hypothesis (Karyotaki, 2016).

Problem-solving skills help students to solve an issue (Tsankov, 2018). Problem-solving skills are needed in carrying out investigations (Mashluhah, 2018). Complex problem-solving makes students participate, provide non-cognitive skills, and critical life (Glazewski, 2020). The problem-solving skills of students in junior high school 1 Balongpanggang are still low categorized. The difficulty experienced in understanding

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