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# Gamification in Interactive Learning of Solar System Materials for Junior High School Students

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**Abstract:-** This study aims to analyze the implementation of interactive learning media with a gamification approach on the Solar System material for junior high school students. The research method used is descriptive quantitative. Data collection in this study used literature review, interviews, questionnaires and evaluation tests. Meanwhile, the data collection instrument used is a set of test questions for evaluating learning outcomes, teacher and student response sheets for interactive learning media with a gamification approach. The results of empirical trials to schools show the level of practicality with a very high category.

**Keywords:-** Gamification; Media Interactive Learning; Solar System.

## I. INTRODUCTION

Education is the main key for the progress of a nation. The progress of a nation begins with improving the quality of human resources through improving the quality of education. This confirms that education will affect the life of the nation and state. The quality of education will be realized if learning can take place effectively, meaning that the learning process can run directed and in accordance with the learning objectives that have been set. The success of the learning process carried out at all levels of education cannot be separated from the methods and ways of teaching teachers in the classroom [1]. The application of learning methods in the learning process is carried out to achieve learning objectives to form student competencies. The teacher is the spearhead who plays an important role in the success of a student, because the teacher is the person who deals directly with students. There are several things that affect student success in terms of the teacher's role, namely the teacher's ability, teacher's professional attitude, teacher's educational background, and teaching experience [2].

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## II. RESEARCH METHOD

The research method used is descriptive quantitative. Data collection in this study used literature review, interviews, questionnaires and evaluation tests. Meanwhile, the data collection instrument used is a set of test questions for evaluating learning outcomes, teacher and student response sheets for interactive learning media with a gamification approach.

The implementation phase includes (1) preparation activities: before starting learning at the first meeting, students work on pre-test questions, (2) implementation of learning by implementing interactive learning media in class, (3) collecting data by filling out response questionnaires, and (4) data analysis. In the second stage, a learning outcomes test was carried out which was used to measure student learning outcomes after the learning process using interactive learning media with a gamification approach on the material of the solar system. The student learning outcomes test is in the form of 20 multiple choice questions that have been validated by material experts, with a very high level of validity.

After the students finished working on the evaluation questions, they were then given a student response sheet. It aims to determine student responses to interactive learning media. In addition to students, teachers are also given a response questionnaire sheet to determine the teacher's response to the implementation of learning media during teaching and learning activities. Student learning outcomes are used as a measure of the efficiency of learning media, while the results of student and teacher responses are used as a measure of the practicality of learning media. The subjects of this study consisted of 26 students of class VII G at SMP Negeri 23 Banjarmasin. The practicality of the learning media is obtained through a questionnaire of teacher and student responses after implementing the learning media. The criteria for the percentage of practicality achievements can be seen in Table 1 below.

TABLE I. THE CRITERIA FOR THE PERCENTAGE OF PRACTICALITY ACHIEVEMENTS

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- The abbreviation “i.e.” means “that is,” and the abbreviation “e.g.” means “for example.” An excellent style manual for science writers is [7].

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TABLE II. TABLE STYLES

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Fig. 1. Example of a figure caption. (figure caption)

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**ACKNOWLEDGMENT**

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