How Does Assure Learning Design Affect Basic Students Learning Outcomes? Quasy Experiment Study

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ABSTRACT

Introduction. Learning process in elementary schools generally still applies teacher-centered learning approach. Because the lack of variation in learning designs applied by the teacher, and the lack of active student involvement in the learning process that make students do not understand the subject matter. The aimed was to analyze the effect of ASSURE learning on learning outcomes in elementary school students. **Method**. Research design used was Quasy Experiment. Sample of this study was elementary school students consist of 100 students with simple random sampling technique and analysis used independent sample t-test. Based on the results obtained, (Mean ± SD) control class pre (60.02 ± 1.2) post-test (Mean 60.30 ± 4.3), pre-experimental class (59.25 ± 3.1) post (85.30 ± 2.6). The results of hypothesis testing obtained the t-value of 19.005 and a significance value of 0.000. Thus the t-value obtained was greater than the t-value in the table (19.005> 1.7011), while the significance value was smaller than the α value (0.000 <0.05). **Result**. There was a significant influence between ASSURE (X) learning design on student learning outcomes on the sub-theme of goods and services by students (Y) elementary class. **Conclusion**. Based on the average value achieved by the experimental class students that the ASSURE learning design can improve learning outcomes in the sub-theme of goods and services in Elementary students.

Keywords: ASSURE learning design, learning outcomes, elementary schools, students

INTRODUCTION

The learning process in elementary schools generally still applies teacher-centered learning approach. Because lack of variation in learning designs applied by teachers, and lack of active students' involvement in the learning process that make students do not understand the subject matter. The learning carried out by teacher in grade IV still used teacher-centered as learning designs, so that students found it difficult to understand the material in learning process and it did not develop students' thinking skills. It was evident from the low student learning outcomes seen from the Minimum Completeness Criteria that have been set by the school, namely ≥ 65. Based on the results of formative tests on the material and services sub-theme, it turns out that only 45% of students had reached the completeness standard, while 55% had not reached the completeness standard[1].

From the above conditions, a learning design is needed to foster and improve student competence, especially in learning outcomes. One of the learning designs that can change a pleasant learning atmosphere is ASSURE learning design[2]. ASSURE is a learning design that prioritizes the learning experience. It is hoped that the students after participating in learning process with ASSURE learning design will have better

learning experience, which in the end will get satisfactory learning outcomes[2,3]. ASSURE learning design is easy to apply in learning practice. It is easy to carry out teaching and learning tasks, can carry out learning activities in a systematic, effective way, and can build conducive classroom atmosphere if each teacher has designed and planned the learning process well[4,5,6]. ASSURE learning design is an abbreviation of the necessary steps contained in learning model. Smaldino et al explained that ASSURE consists of six steps[7,8]. First is analyzing student characteristics. Second formulating the standards and learning objectives to be achieved (state standards and objectives). Third is selecting methods, media, and teaching materials. Fourth is using or utilize media and materials. Fifth is involving student participation in learning (require learner participation). Last is evaluation and revision (evaluate and revise). All of these components focus on emphasizing teaching to students by interacting with their environment and do not passively receiving information[8]. Several learning models can support ASSURE learning design to improve mathematical communication ability; namely, problem-based learning (PBL) and guided discovery model[9]. After selecting the learning model, ASSURE recommends choosing the type of instructional media to be used. Mathematics learning media can facilitate students in learning mathematics, and one of them improves students' mathematical communication skills. Lesson material delivered through substantive learning media and should contain adequate competency standards. Therefore, students' mathematical communications skills can be improved using ASSURE learning design with the appropriate method and learning media[10].

An alternative that can be used is a learning model that can make students active and liven up the classroom atmosphere so that the class will no longer becomes boring. This can be done by utilizing technology as a learning medium. Technology does not only make learning easier but also able to increase curiosity and make students more interested in taking part in learning. One model that can be used is ASSURE learning model. ASSURE model is a learning model that is more oriented towards the use of media and technology in creating the desired learning processes and activities[10,11].

One of the characteristics analyzed in ASSURE model is prior knowledge. Prior knowledge is level of knowledge that students have before starting the learning process. Teacher's prior knowledge is often assumed to be same when in reality it is not necessarily the case. According to Early, Knowledge has the greatest impact on learning. Those with good prior knowledge can learn better. Researchers predict that prior knowledge will also affect learning outcomes so that researchers choose prior knowledge as moderator variable. This research can be a consideration for using ASSURE model for other materials or subjects and it is necessary to review students' prior knowledge so that it is not considered same for all conditions[11].

METHOD

The research design used was an experimental method. The sample in the study was 100 students using a simple random sampling technique. Independent variable used was ASSURE Learning Design. The dependent variable was learning outcomes. In this study, hypothesis testing used an independent sample t-test. Data analysis of independent sample t-test was used to measure whether there were differences in learning outcomes between experimental group and control group. SPSS was used to get result of independent sample t-test. The decision taking was based on comparison of the t-count with the t-table at the 5% degree of error.

DISCUSSION

Based on the results obtained, that the average value achieved by control class in the *pre-test was* 60.02 while in the post-test it was 60.30, then for the experimental class the average score was *pre-test* 59.25

while the average post-test score achieved by the students was 85.30. Thus *Post Test* and *Pre Test* scores achieved by experimental class were better than *Post-test* scores and *Pre-test* achieved by students of Control class. Then average *pre-test* score of 60.02 achieved by control class has increased average *post-test score* to 60.30. Meanwhile, experimental class also shown an increase, the average value of *pre-test* was 59.25 to 85.30 in the *post-test*. Based on the average value achieved by experimental class students that ASSURE learning design can improve learning outcomes in the sub-theme of goods and services in fourth-grade elementary students. The results of hypothesis testing obtained t-value of 19.005 and a significance value of 0.000. The results showed that there was a significant influence between ASSURE (X) learning design and student learning outcomes on the goods and services sub-theme by the fourth-grade elementary students (Y).

The results of this test indicated that the use of ASSURE learning design for both problem-based learning and discovery learning models is equally suited to improving elementary and upper-level school students. Furthermore, for lower-level schools, it is more appropriate to use ASSURE learning design with discovery the learning model[12]. Teacher performance is as manifestation of their ability to implement problem-solving strategies and students must learn mathematics an independent exploration of student interests, tailored to the problem-solving view. There were four indicators of mathematical communication ability. The first indicator uses symbols/notations and mathematical operations appropriately. The second indicator gives the idea - what is known and asks for a problem and gives the reason. The third indicator presents contextual problems into images, graphs, tables, or algebra. The fourth indicator describes images, graphics, tables, or mathematical sentences into contextual and appropriate descriptions[13].

Based on all indicators, the highest improvement of mathematical communication ability lies with the third indicator, obtained by group of students who received ASSURE learning design using problem-based learning model. The improvement in the upper-level school students showed a significant increase of 0.80. While the percentage of the lowest ability improvement is the capacity to use the symbol/notation, mathematical operations appropriately, i.e. in lower-level school students group with utilization of the conventional design that reached 0.16. The learning trajectory in the learning process has an important role in developing mathematical communication ability based on its indicators[14,15,16].

The results of research regarding the use of ASSURE learning design have not been done much, other studies have shown the application of ASSURE learning model to improve learning outcomes. The results showed that students' learning completeness reached 100% with an increase in learning interest by 83%. In mathematics, other studies have shown that there was a difference in the ability to calculate the area of a flat shape between students taught using ASSURE learning model and the direct learning model for grade V Semester II elementary students. And student learning outcomes treated with ASSURE learning model are better than the learning outcomes of students who were treated with direct learning models[17]. At the elementary level, according to research conducted on the ability and improvement of critical thinking and mathematical creative thinking of students whose learning using ASSURE learning model was better than the ability of students whose learning was carried out conventionally[18,19].

The boring teaching and learning process can affect psychological condition of students such as stress conditions in the learning process due to conditions of the learning environment, because stress is a condition of a person's reaction both physically and emotionally when there is a change in the environment that requires someone to adjust[20,21,22,23,24]. It will have an impact on a person's mental disorders[25,26,27]. Student learning outcomes can be caused by teachers or educators that still using teacher-centered learning model that affect to learning outcomes. If the learning outcomes are low, it will also have an impact on their self-esteem condition. Self-esteem is a condition of an individual's assessment of himself/herself[28,29]. Thus,

through ASSURE learning design, the teacher is expected to be a means of optimizing learning outcomes, especially in the sub-theme of goods and services in elementary school classes[30].

Learning outcomes also need to be optimized considering that learning outcomes are a means to determine student learning success. Thus students need an innovative and fun learning model so that their learning objectives can be achieved. To improve learning outcomes, namely by developing learning designs. ASSURE learning design is a learning design that prioritizes the learning experience. It is hoped that students after participating in learning process with ASSURE learning design will have better learning experience, which in the end of the lesson will be attached to each student so that students will get satisfactory learning outcomes[31].

ASSURE Learning Model is a learning model that can help students towards the better way in which ASSURE learning teachers are required to be more active in providing learning tools as a learning source. As the low learning outcomes are influenced by the learning source, one of them is teaching materials as a source of knowledge. To assure that students have sufficient and various kinds of educational opportunities to learn or develop desired outcomes, faculty and staff often engage in curricular and co-curricular mapping[32]. Supported by other research that model-eliciting activities and a valid set of problem cards with ASSURE model-assisted help to shape the confidence of junior high school students[33]. Thus, ASSURE learning design is good for experimental class which has a significant effect on learning outcomes goods and services sub-theme of elementary class students.

CONCLUSION

Based on the results of the research and analysis carried out, it was concluded that there was an effect of ASSURE learning design on learning outcomes in the sub-themes of goods and services for fourth-grade elementary school students. This was evidenced by the significant difference between students who were treated with ASSURE learning design on the learning outcomes of goods and services sub-theme and students who were not provided with ASSURE learning design. This was based on increasing in the average value of experimental group that was treated with ASSURE learning design in the learning outcomes of goods and services sub-theme.

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