Implementation Of Introductory Education Teaching Materials To Improve Learning Outcomes

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Abstract

In the current covid19 pandemic, it makes it difficult for students to get learning resources due to limited time and space various places such as pepustakaan are limited in the number of visitors, online references have not met the material studied on the syllabus for one semester. So it is difficult to find teaching materials. Actually, in the mathematics education study program, there are already introductory educational teaching materials developed by Zulyaidaini. But it has not been used in a systematic way. This study aims to optimize the learning outcomes of introductory education courses by implementing educational teaching materials that have been developed. The research method used is class action research by using the Elliot model which consists of the stages of findings and fact analysis, planning stages, stages of action implementation, stages of monitoring and effects, stages of explanation of failures. The subject of the study was an even semester student of the 2020/2021 academic year in mathematics education totaling 11 students. The inference technique uses written tests, observations and data in the analysis using t-tests for related samples. The results showed that the learning process gets an increased process in each sirklus and the results obtained in each sirklus continue to increase, so that learning that implements introductory educational teaching materials can improve student learning outcomes. So it is recommended that in optimizing learning outcomes use introductory educational teaching materials that have been developed in accordance with student needs

Keywords: teaching materials, Introduction to education) and learning outcomes

INTRODUCTION

Universities must always carry out innovations in the field of education, especially in the use of learning resources. In the COVID-19 pandemic that occurred, it made it difficult for students to obtain learning resources due to limited time and space that had to optimize health procedures. Various places such as pepustakaan are limited in the number of visitors, causing students to have difficulty in finding references or learning resources. However, online references such as ebooks are many in online sites, but have not met the material studied on the syllabus for a semester. The material presented is still fragmentary so that it requires extreme energy in the learning process. This is proven based on students' test scores, especially in introductory education courses that are still low. Based on the review during the covid 19 period, students had difficulty making assignments due to the lack of teaching materials. This forces students to experience literature from the blogspot arau woldpress site that is not guaranteed to the information obtained. This has an impact on the results of the UAS exam which are still low. Actually, at the Faculty of Teacher Training and Education, especially in the mathematics education study program, there are already introductory educational teaching materials developed by Zulyaidaini, but they are still in the form of

books and have not been online, this is what makes further research.

Based on the data presented above, this research is a follow-up study from the previous research conducted by Zulydaini 2019. The results of the research carried out provide good formative evaluation results so that they are worthy of widespread use. On this basis, conduct this research to proceed to the implementation process in the form of action reseach. The results of the research above are also in line with the opinions expressed by sanjaya (1988: 129) learning using teaching materials makes learning more effective, providing opportunities for students to advance sustainably based on their respective abilities by developing themselves optimally. This shows that the use of teaching materials in learning makes learning more effective in accordance with the ability of participants to develop themselves optimally. In addition, winkel (2004) learning by using teaching materials will apat increase the motivation of students, knowing whether they are successful or have not succeeded, making learning more effective. The kuliah pengatar course is a compulsory course taken by every student who studies at FKIP. As the name implies, this course as an education provider must be in accordance with the current education.

From the two expert opinions above, the research will be carried out by implementing introductory educational teaching materials to students of the FKIP mathematics study program at Batanghari Jambi University. Students who are subjected are students who become prospective mathematics teachers in junior and senior secondary education. Based on the facts revealed above, it provides an opportunity to conduct research on the implementation of introductory educational teaching materials to improve learning outcomes at FKIP Batanghari Jambi University. Eventhose who formulate the problem are how to implement introductory educadion learning teaching materials to notarize learning outcomes, and what factors are obstacles and support in implementing introductory education learning teaching materials to notarize learning outcomes

Related to the pesrsoalan, the concepts and theories used are learning outcomes, teaching materials, and introduction to education

Learning Outcomes

Learning outcomes can be defined as an activation process to conclude whether the instructional objectives of a program have been achieved (Daryanto, 2010: 131). The result is an achievement that has been tried and done by someone. Reasonable efforts will produce good results. On the other hand, if the effort is not optimal, it will also produce unsatisfactory results. Learning outcomes in the learning process, in particular, are more directed at the ability of students to master certain materials and skills.

Sudjana (2006: 22) says that the process is an activity carried out by students to achieve teaching goals while learning outcomes are the abilities that students have after they receive their learning experience. Kingsley (in Sudjana, 2006: 22) divides three kinds of learning outcomes, namely (a) skills and habits, (b) knowledge and understanding, (c) attitudes and ideals. Each type of learning outcome can be filled with materials defined in the curriculum. In general, learning outcomes will influence two forms, namely:

a) Students will have a perspective on their strengths and weaknesses for the desired behavior.

b) They find that the desired behavior has increased either one step or two so that there is a gap between the appearance of the current behavior and the desired behavior.

Meanwhile, Gagne (in Sudjana, 2006: 22) divides five categories of learning outcomes, namely: (a) verbal information, (b) intellectual skills, (c) attitudes and ideals, (d) attitude, and (e) motor skills. In line with Sudjana's opinion, Sardiman (2011: 28) said learning outcomes include: "(a) matters of science and knowledge, concepts or facts (cognitive); (b) Personal

matters, personality or attitude (affective); (c) Matters of behavior, skills or appearance (psychomotor)".

The national education system uses Bloom's classification of learning outcomes to formulate educational goals, both curricular and instructional goals. In Bloom's taxonomy, learning objectives can be

classified into three domains, namely:

1) Cognitive domain; concerning the ability and intellectual abilities of thinking;

2) Affective domain; concerning attitudes, abilities and mastery of the emotional aspects, namely feelings, attitudes, and values.

3) Psychomotor domain; concerning a skill or physical movements (Rusman, 125: 2012).

According to Sudjana (2010; 22), the classification of learning outcomes from Bloom in more detail is as follows:

1) Cognitive domain regarding intellectual learning outcomes which consists of six aspects, namely (a) knowledge or memory, (b) understanding, (c)) application, (d) analysis, (e) synthesis, and (f) evaluation.

2) The affective domain relates to attitudes consisting of five aspects, namely (a) acceptance, (b) answers or reactions, (c) assessment, (d) organization, and (e) internalization.

3) The psychomotor domain concerns learning outcomes of skills and the ability to act. There are six aspects of the psychomotor domain, namely (a) reflex movements, (b) basic movement skills, (c) perceptual abilities, (d) harmony or accuracy, (e) complex movement skills, and (f) expressive and interpretive movements.

Bloom led the development of the cognitive domain, which resulted in six cognitive levels. The most superficial level is knowledge, followed by understanding, application, analysis, synthesis and assessment, which are more complex and abstract. In the affective domain based on appreciation, led by David R. Krathwohl, the psychomotor domain related to simple reflex movements to neural movements is led by Anita Harrow.

In line with this, Suyono (2011: 167) states that Bloom's taxonomy focuses on knowledge, attitudes, and skills. Cognitive understanding means knowledge, knowing, thinking or intellect. Affective means feelings, emotions, and behavior, related to the behavior of responding, acting or feeling, or feeling. Psychomotor means the rules and physical skills, skilful and doing. Bloom et al. (Suyono, 2011, p. 167) develop the cognitive domain into six groups, namely: knowledge, comprehension, application, analysis, synthesis and evaluation, while for the affective domain, there are five types of categories as follows: a) Receive; b) Report/report; c) Assess/value; d) Organize or develop the concept of values (organize or conceptual values); e) Internalize and determine the characteristics of values (internalized or characteristic values).

Teaching material

According to Amri & Ahmadi (2010: 161) types of teaching materials are grouped into four categories, namely visual teaching materials consisting of printed and non-printed materials, teaching materials with (audio), hearing teaching materials (audio visual), interactive multimedia teaching materials (interactive teaching materials)). Printed teaching materials are widely used because they are easy to use and understand. Printed teaching materials are also able to present what should be conveyed to the learners as a whole. Moreover, teachers are also able to make their own printed teaching materials that can be adjusted to learning needs easily. There are many kinds of printed teaching materials according to (Amri & Ahmadi, 2010: 161) some of which are hand outs, books, modules, student worksheets, brochures, leaflets, wallcharts, photos / pictures.

According to the Ministry of National Affairs (2008: 6) teaching materials are all forms of materials used to assist teachers / instructors in carrying out teaching and learning activities. Meanwhile, teaching materials according to Lestari (2013: 1) are a set of learning goals or tools that contain learning

materials, methods, boundaries and ways of evaluating that are designed systematically and interestingly in order to achieve the expected goals, namely achieving competencies or subcompetences with all their complexity. Teaching materials are all forms of materials used to assist teachers / instructors in carrying out teaching and learning activities in the classroom. The material in question can be in the form of written material or unwritten teaching material (Majid, 2007: 174). This shows that teaching materials have an important role in a learning process. So that without the presence of teaching materials, it is impossible for learning objectives to be achieved and basic competencies to be mastered by students.

Teaching materials or learning materials (instructional materials) broadly consist of knowledge, skills, and attitudes that students must learn in order to achieve predetermined competency goals (Hamdani 2011: 120).

From some of the theories above, it can be concluded that teaching materials exist in all forms of learning materials or resources that contain subject matter, methods, evaluations that can be used by educators in carrying out learning, both in the form of electronics, hand outs, books, modules, student worksheets, brochures, and so on,

Introduction to Education

According to Law No. 20 of 2003: The definition of education based on Law No. 20 of 2003 is a conscious and planned effort to create a learning atmosphere and learning process so that students actively develop their potential to have religious spiritual strength, self-control, personality, intelligence, noble character, as well as the skills needed for themselves, society, nation, and state.

In addition, Jhon Dewey (2003: 69) explains that "Education is the process of forming fundamental intellectual and emotional skills towards nature and fellow human beings". Meanwhile, according to **J.J. Rousseau (2003: 69)** explains that "Education is to give us a

provision that does not exist in childhood, but we need it in adulthood

Oemar Hamalik (2001: 79) explains that "Education is a process in order to influence the student to be able to adjust as well as possible to the environment and thus will cause changes in himself that allow him to function strongly in the life of society".

Based on the above opinions, it can be concluded that education is a conscious and planned effort to provide guidance or assistance in developing the physical and spiritual potential given by adults to children to achieve their maturity and achieve goals so that children are able to carry out their life tasks independently.

The types of education are as follows

1. Formal Education

Formal education is a type of education that is structured and has levels, ranging from early childhood education (PAUD), basic education (SD), secondary education (SMP), upper education (SMA), and higher education (University). The following are the educational units providing formal education:

- Kindergarten (TK) and Raudatul Athfal (RA)
- Primary School (SD) and Madrasah Ibtidaiyah (MI)
- Junior High School (SMP) and Tsanawiyah Madrasah (MTs)
- Senior High School (SMA), Madrasah Aliyah (MA), Vocational High School (SMK), and Vocational Aliyah Madrasah (MAK)
- Colleges (Academies, Polytechnics, Colleges, Institutes, Universities)

2. Non-Formal Education

Non-formal education is an educational path outside of formal education that can be carried out in a tiered and structured manner. This type of education can be equated with the results of formal education programs through an

assessment process from the competent authority. The following are the educational units providing non-formal education: Playgroups (KB), Child care parks (TPA), Course institutions, Sanggar, Training institutions, Study groups, Centers for community learning activities, Taklim councils .

RESEARCH METHODOLOGY

This research method uses action research. According to Gunawan (2007), action research is an activity and or action to improve something who's planning, implementation, and evaluation are carried out systematically and systematically so that its validity and reliability reach the level of research. The action reaseach research procedure uses the Elliot model with steps: (a) stages of findings and analysis of facts, (b) stages of planning, (c) stages of action implementation, (d) stages of monitoring and effects, € stages of explanation of failures. This research was conducted in the mathematics education study program in the even semester of 2020/2021. The number of research projects totaled 11 students. Data collection uses written tests, observations, and interviews. Analyze the data using trianggulation and related sample t-tests.

RESULTS AND DISCUSSION

1. Deskripsi Siklus pertama

a) Findings and fact analysis stage

Based on the results of previous analysis in the introductory education course, it is a refleksi material for lecturers who teach courses to improve the quality of the learning process and the result is learning outcomes. Based on the background of the problem, students have difficulty in finding literature or teaching materials that are in accordance with the material for one semester, especially during the Covid-19 period. Therefore, these problems must be overcome through research on the application of introductory educational teaching materials in improving learning outcomes. With this awareness, it is hoped that

introductory educational teaching materials can improve the quality of the process, make students active in learning and make assignments with the teaching materials presented. b) **Planning stage**

Planning in circus 1 uses material on the nature of education. The material prepared is the Nature of Education (Definition ofEducation, Philosophy of Education, Education, The Future of Education). The learning process is carried out online via zoom, students are divided into 4 groups and each group consists of 2 and 3 students. Then each group discusses the sub-sub-material studied. The tasks studied by each group are the meaning of the Nature of Education, Understanding Education, Educational Philosophy, Education Science, and the Future of Education.

b) Implementation stage

The implementation of phase 1 is carriedoutonline via zoom by giving group assignments to students as follows: Students are divided into 4 groups and each group consists of 2 and 3 students. Each group discusses the sub-sub-material studied. The tasks studied by each group are group 1 discussing the meaning and nature of education, group 2 discussing educational philosophy, group 3 discussing educational knowledge, and group 4 discussing the future of education. Each group takes turns to present the results of the discussion on the material provided and lecturers as assistance in the discussion. Other groups other than those presented are required to respond to at least one question to the material presented, both in the form of questions, criticisms, suggestions on understanding the material presented. Each group presents a group task that is presented and submits to the lecturer team the assessment is organized based on process activities during group discussions and during presentations. The assessment is carried out by a team of lecturers by assessing the ability of group cooperation, understanding of the material presented, and skills in developing understanding of the material presented.

c) Stage monitoring of implentation and effects

The implementation of monitoring is carried out simultaneously with the implementation of actions, namely observing student activity, namely observing the activeness of students in groups when carrying out discussions, changing the results of discussions, ability and smoothness in responding to the problems / questions asked, presenting the results of discussions, meetingtan in answering, the ability to give ideas orally and the authenticity of their ideas. The results of learning from the implementation obtained the results that not all groups were able to present all aspects of the assessment as expected. The results can be seen only 1 group that has been able to cooperate well, actively and answer according to the material studied. Meanwhile, 3 has not been seen to be actively involved in cooperation in groups. At the time of presenting and answering questions was not evenly distributed, only one or two people answered while the others were mostly inactive. So it requires intensive guidance from the beginning to the end of learning.

In the initial learning activity, a pre-test was held, obtaining the results of 9 other students declared incomplete, the score < 70. The average learning outcome of cycle 1 is 61.82 and the completion of clausical learning is 18%.

The results of the pre-test and post-test t-tests in the first cycle were obtained t hitung of 3.2526 and ttable 2.228, then thitung was greater than ttabel. So it can be concluded that there is a significant difference between the average score of the pre-test and the average score of the post-test or there is a significant increase in student learning outcomes in the first cycle

d) Failure explanation stage

Based on the results of monitoring, there are the following weaknesses: (1) The ability to understand the material, still have problems in responding to educational philosophy, and implementation of the future of education. In answering this question, only the nature of education, the understanding of education is good, while others still need guidance (2) The martial arts experience gained is still low, especially looking for insight into educationn that will occur in the future, (c) Kemampuan making written reports not in accordance with good writing rules, (d) Low responsibility and hard work in carrying out tasks in the group. So it needs to be done in the form of providing motivation in understanding the material in the introductory teaching materials for education by developing classing abilities in life related to the world of education.

2. Description of Sirklus Dua

a) Planning stage

The planning stage carried out in sirklus 2 refers to the recommendations in cycle 1 to be the main point in planning and compiling the implementation of actions carried out in sirklus 2. The planning in cycle 2 is related to educational material as a system. (Definition of Systems, system components, System Theory (Characteristics and Models), various systems, and Analysis of Education as a System). Planning on the same process on circumference 1

b) Implementation stage

The implementation of cycle 2 is carried out online via zoom. introductory educational teaching materials require students to focus on learning to obtain maximum results in understanding the maeri presented. The activities carried out according to the planning and steps of the activities are the same as the circumference 1. However, in the tugas studied by each group is group 1 discussing the Definition of Systems, and the components of the education system, group 2 discussing System Theory (Characteristics and Models), group 3 discussing various systems, and group 4 discussing The Analysis of Education as a System

c) Stage monitoring of implmentation and effects

Monitoring is carried out together with the implementation of actions. The results of the implementation are 3 groups that can display all aspects expected. Meanwhile, 1 group still shows that there are aspects that are not optimal, such as when answering questions, it is still uneven because it is still dominated by one or two people.

From the results of the post test cycle 1 in table 4.3 above which was attended by 11 students, there were 8 students who were declared complete and 3 other students were declared incomplete, the score < 70. The average learning outcome of cycle 1 is 71.36 and the clausical learning completion is 72.72%. To analyze the results of the study whether it has a significant increase or not, a t-test is used. the results of the pre-test and post-test t-tests in the second cycle obtained t hitung of 3.5634 t table by 0.05 or 5% by 2.228, then thitung was greater than ttabel. So it can be concluded that there is a significant difference between the average score of the pre-test and the average score of the post-test or there is a significant increase in student learning outcomes in the second cycle.

Test t Results Post-test First Cycle With Post-test Second Cycle

the results of the t-test post-test of the first cycle and post-test in the second cycle obtained a value of t hh itung of 2.3520 consulted at t of 2.228, with et al 10 at a significance level of 0.05 or 5% . It turns out that his greater bi compared to ttabel, meaning that the results of the post-test of the second cycle are up significantly compared to the post-test of the first cycle.

d) Failure Explanatory Stage

Based on reflection as a large student is in the good and very good category while the small part is in the sufficient category. The result is that the ability to present the results of the discussion still needs input and improved how to explore relevant material, especially for 1

group and the other group is good and shows hard work.

Based on the results of the reflection, the research team looked for solutions for groups that had difficulty by providing motivation and understanding how to explore the material when answering questions. The results of this reflection are continued to circumcision 3.

3. Description of Sirklus

a. Pandrandncanaan

The third circus planning refers to the results of the recommendations given in circus 2. The main considerations in planning and implementing actions are related to the foundations of education.

b. Implementation stage

The third cycle is carried out online through Zoom meetings. The implementation carried out is the same as in the 2n maun tugas cycle which is studied by each group about the foundations of education is group 1 discussing the Philosophical Foundations, group 2 discussing the Foundations of Punishment, group 3 discussing the Foundations, and group 4. discussing the Sociological Foundations, Scientific and Technological Foundations.

c.   Monitoring Phase

The implementation of monitoring is carried out in conjunction with the implementation of the action. In learners, it turns out that there is a significant increase in learning outcomes between circumference 1 and circumference 2. The increase in students can be seen in terms of delivering material, discussing, answering questions and exploring material. From the results of the post test cycle 1 in table 4.6 above which was attended by 11 students, there were 10 students who were declared complete and 1 other student was declared incomplete, the score < 70. The average learning outcome of this cycle 1 is 83.18 and the completion of classical learning is 90.9%. When compared to the initial test given, there was an increase in both the average and completion of classical

learning, namely from 57.18 to 83.18 but there has not been an increase in the level of classical completion.

Then the results of the pre-test and post-test t-tests in the second cycle obtained t hitung of 3.5089 ttabel of 2.228, then thitung is greater than ttabel. So it can be concluded that there is a significant difference between the average score of the pre-test and the average score of the post-test or there is a significant increase in student learning outcomes in the third cycle

Test t Results Post-test First Cycle With Post-test Second Cycle

the results of the t-test post-test of the first cycle and post-test in the second cycle obtained a value of t hitung of 3.1465 dand t table of 2.228. It turns out that hisng greater bi compared to ttabel, meaning that the results of the post-test of the third cycle increase significantly compared to the post-test of the keda cycle.

e) Failure explanation stage

Based on monitoring, the team evaluated the learning activities carried out both in terms of process and in terms of results. Then every step of djadikan reflection there is an increase in learning outcomes from circumference 1, sirklus 2, and sirklus 3 using introductory educational teaching materials. On the reflection carried out did not find any difficulties thatwere in understanding and digging into the material studied.

Discussion

1. **Iimposing teaching materials for introductory education learning to improve student learning outcomes at FKIP Batanghari Jambi University**

In the first circumcision, it was shown that at the time of the implementation of learning there was still a large group unable to display all the expected aspects. There is 1 group that has been able to carry out good, active, and orderly cooperation. Meanwhile, 3 groups are still not optimal because they are still dominated by 1

person and the others have not seen their activity. Then the questioning of the group again has not been evenly distributed, and only 2 or 3 people dare to answer questions. There is even one group that is faciit so it needs guidance and assistance from the research team.

In circus 2 as a large group already displays aspects. There are 3 groups that can display all the expected aspects. Meanwhile, 1 group still shows that there are aspects that are not optimal, such as when answering questions, it is still uneven because it is still dominated by one or two people. The ability to convey and respond to questions of almost all groups is good, as well as in developing materials related to daily life. The learning process in the 3rd sirklus, close to the learning outcomes that describe the optimal conditions of the experience of the circus process 1 and 2. Each sirklus is given a recommendation for the next sirklus process.

The implementation of introductory educational teaching materials hasa positive impact on student learning outcomes in the form of mastery of the material, skills and attitudes that students have after learning introductory educational teaching materials. The learning outcomes obtained are written tests given at the beginning of learning as a pre-test and at the end of learning as a postest.

Inhibiting and supporting factors

Factors that support the implementation of introductory educational teaching materials are motivation, enthusiasm in understanding and exploring the material presented by each group. Meanwhile, what hinders is network problems when learning is carried out online such as signals so that often the sound is intermittent.

Conclusion

The implementation of introductory educational teaching materials can improve student learning outcomes. With a yield of 3.1465 greater than t table 2.228 at a significant level of 5%. This means that there is an increase in student learning outcomes by using introductory educational teaching materials.

Then fthe supporting actors are motivation, enthusiasm in understanding and exploring material, while what hinders is the problem of the internet network. This result is expected for lecturers who teach introductory education courses in other study programs to use the introductory education teaching materials that have been compiled in order to improve student learning outcomes.

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