



Needs Analysis of Case Study-Based Multicultural Education Textbooks

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Abstract. Issues related to GEDSI are usually integrated into courses in humanities architecture and study programs and are still limited to universities that have centers for women, gender, children, family, and disability studies. Issues related to GEDSI can be integrated into the Multicultural Education course which discusses the theory, history, meaning, interaction, basis, goals, and functions of multicultural education in Indonesia, as well as issues of education and justice in education. This study aims to obtain information regarding the analysis of student needs. Towards Case Study-based Multicultural Education textbooks. The sample used in this study were 68 students of the Biology Education Department in the first semester of the 2022/2023 academic year. Data was collected through observation, interviews, and filling out questionnaires. The data obtained were analyzed descriptively quantitatively. The results of the analysis of student needs for the text of the Case Study-Based Multicultural Education book showed that only 13.2% of the sample had handbooks for studying Multicultural Education. All samples who filled out the questionnaires that were distributed agreed that they needed an appropriate textbook that was used and as many as 94.1% of students agreed if the method was applied to the Multicultural Education textbook. Based on these results, it can be said that it is necessary to develop case study-based learning books for the subject of Multicultural Education in a sustainable manner.

Keywords: GEDSI · Learning Media · Learning methods · Learning model · Teaching materials

1 Introduction

Gender Equality, Disability, and Social Inclusion (GEDSI) is a program that needs to be integrated into the Independent Campus Learning program. This program is a form of implementation of the Regulation of the Minister of Education, Culture, Research, and Technology No. 30 of 2021 concerning the Prevention and Handling of Sexual Violence in Higher Education. However, in reality there are not many universities that provide courses related to GEDSI. Issues related to GEDSI are usually integrated into courses contained in study programs and faculties of humanities and are also still limited to universities that have centers for women, gender, children, family, and disability studies. Issues related to GEDSI can be integrated into the Multicultural Education course.

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Multicultural education is one of the new courses contained in the MBKM Curriculum used in the Biology Education Department, at FKIP Jambi University. This course discusses the theory, approach, history, meaning, implications, basis, objectives, and functions of multicultural education, the problems of multicultural education in Indonesia, and the important role of schools as cultural development institutions. This course is contracted by semester 1 students as a compulsory faculty subject.

The implementation of multicultural education lectures in particular and all courses in general at the University of Jambi is directed to use the Project Based Learning or Case Study model. It aims to create innovations in the learning that is carried out so that the quality of education at Jambi University increases. In the implementation of lectures in the previous semester, namely the odd semester of the 2021/2022 Academic Year, the implementation of Multicultural Education lectures was carried out by applying the Case Study learning model. Case Study is student-centered learning by presenting various cases or problems that occur in everyday life. Students are challenged to be able to find alternative solutions that can be used to solve the case. Through this case study learning, it is hoped that the 4Cs will grow in students, namely, critical thinking and problem solving, creative thinking, communication, and collaboration where these 4Cs are important skills that must be possessed in the 21st century.

The weakness felt in the implementation of Multicultural Education lectures using the Case Study learning model in the 2021/2022 academic year is the absence of teaching materials that support lectures with this model. Teaching materials are an important element that must be present in the classroom learning so that lecturers can facilitate students to learn well. Therefore, it is important to develop a textbook that can be used by lecturers to carry out Multicultural Education lectures using the Case Study model. For this reason, researchers have an interest in conducting a study entitled "Development of Case Study-Based Textbooks for Multicultural Education Courses". Through this research, it is expected to produce a case study-based textbook to support the implementation of multicultural education lectures in the Biology Education Study Program in particular, and in FKIP in general.

2 Research Method

This research is a quantitative descriptive study, where data is collected directly from respondents through data collection instruments. The subjects of this study were students of the Biology Education Study Program, FKIP Jambi University, Class of 2022 who were contracting a Multicultural Education course. The research was conducted from May to June 2022. Data were collected through questionnaires and interviews.

The first stage of this study was to conduct interviews with students who contracted Multicultural Education courses. The interview topics covered three things, namely the teaching materials used, student characteristics, and the curriculum used during learning. The topic of teaching materials includes questions regarding the availability of teaching materials, intensity of use, problems that are often faced, and student expectations in the future. The topic of student characteristics includes questions about interest in Multicultural Education, problems that often arise in learning Multicultural Education, and student expectations regarding future Multicultural Education learning. Curriculum

Table 1. Category Percentage of Data Needs Analysis

Percentage (%)	Category
0 – 1,9	Not needed
2 – 49,9	Few of subject need the learning book
50	Half of subject need the learning book
50,1 – 99,9	Most of of subject need the learning book
100	All the subject need the learning book

topics contain questions about the curriculum that is applied, the learning methods used, and the problems that are generally faced.

The next stage is filling out a needs analysis questionnaire by students who are contracting Multicultural Education courses. The purpose of filling out this questionnaire is to find out the types of teaching materials needed by students. Needs analysis questionnaire using the Guttman scale. The answer “yes” is worth “1” and the answer “no” is worth “0”.

The results obtained were analyzed quantitatively in the form of percentages. The formula for calculating the percentage of data needs analysis is as follows:

$$P = \frac{f}{n} \times 100\% \quad (1)$$

Information:

P = Percentage

f = Frequency of answers

n = Number of answers

The interpretation category of the percentage of the needs analysis questionnaire uses a modification of the category stated by [1]. The interpretation category can be seen in Table 1.

If the results of the questionnaire data analysis of the needs analysis of the questionnaire show the percentage is equal to or more than 50%, it can be concluded that the development of teaching materials is needed. The overall results of data analysis are presented in descriptive form. The data to be described include the results of the interpretation of questionnaires and interviews.

3 Results and Discussion

The interview topics covered three things, namely the teaching materials used, student characteristics, and the curriculum used during learning. The results of interviews regarding the teaching materials used can be seen in Table 2. Table 3 shows the results of interviews regarding the characteristics of students who contracted Cell Biology courses. The results of interviews regarding the curriculum used can be seen in Table 4.

Table 2. Interview Results Regarding Teaching Materials

No.	Question Topics	Answer
1.	Availability of teaching materials	Teaching materials that are usually used by lecturers when learning Cell Biology are in the form of materials that are shared through ppt
2.	Intensity of use of teaching materials	Teaching materials used on an ongoing basis are ppt which are provided by subject lecturers with the help of media in the form of a projector.
3.	Problems regarding teaching materials	PPT teaching materials that are often used by supporting lecturers require further additional material. The teaching materials used also do not support learning with the case method.
4.	Expectations of developing teaching materials	Teaching materials are supported by more detailed materials so that they can help students understand Multicultural Education. The developed teaching materials are also expected to support learning by using the case method.
5.	The desired element as the completeness of teaching materials	Teaching materials are expected to support the implementation of learning by using the case method.

The results of the analysis of student needs for Case Study-based Multicultural Education textbooks showed that only 13.2% of the sample had handbooks for studying

Table 3. Student Characteristics

No.	Question Topics	Answer
1.	Student interest in Multicultural Education	Most of the students stated that Multicultural Education is an interesting topic
2.	Problems that often arise	Problems that often arise are difficulties in understanding the material and carrying out learning with case studies
3.	Expectations in the future	There are teaching materials that can support learning so that the topic of Multicultural Education becomes more interesting to study

Table 4. Tthe Curriculum Used

No.	Question Topics	Answer
1.	Curriculum applied	The curriculum currently applied in the Biology Education Study Program, FKIP Jambi University is the 2021 MBKM Curriculum.
2.	Learning methods that are often applied	The methods applied to learning are quite varied, including lectures, discussions, and case methods.
3.	Problems that generally occur	The problem that generally occurs is the lack of teaching materials that can support learning using the case method.

Table 5. Results of the Needs Analysis Questionnaire

No.	Indicator	Percentage (%)	Average Percentage (%)	Category Level of Need
1.	Students who need textbooks that were in accordance with the curriculum used	100	97.05	Most of of subject need the textbook
2.	Students that agreed if the Case Study was integrated into the Multicultural Education textbooks	94.10		

Multicultural Education. After conducting interviews with students who contracted Multicultural Education courses, a need analysis questionnaire was distributed for teaching materials. The average percentage of student needs is 97.05%, so it can be interpreted that most students need teaching materials. The results of the questionnaire needs analysis of teaching materials can be seen in Table 5.

Based on interviews conducted with students, it is known that teaching materials that are usually used by lecturers in Multicultural Education courses are in the form of teaching materials presented in ppt form. The results of the interview show that there is a need for students for teaching materials that can make them understand the material of Multicultural Education better.

In addition, the teaching materials that are usually used also do not support the implementation of learning using the case method. This can make it difficult for lecturers to prepare worksheets for students every time they carry out Multicultural Education learning with the case method, so that the preparation of lecturers in carrying out learning

becomes less mature. This immature lecturer preparation can also have an impact on the implementation of the learning process properly.

Students hope that there will be the development of interactive teaching materials that can make them understand the object of study of Multicultural Education well and at the same time support the implementation of learning by using the case method. The teaching materials developed are also expected to contain elements such as complete material and clear and supportive images. Seeing the results of this study, it can be realized that teaching materials have a very important role in learning activities. This is in accordance with the statement of [1], that teaching materials consist of all types of materials used to support the learning process in the classroom. If there are problems related to teaching materials, the learning process will not run optimally.

The teaching materials that will be developed must be able to facilitate students in the learning process of Multicultural Education with the case method. The goal is that students can be trained to solve various problems and can build their own knowledge. In line with the opinion of [2], case method-based learning can increase student involvement in the learning process so that learning becomes more active and can train students' higher-order thinking skills and students can build their own knowledge.

After conducting interviews with students, a needs analysis questionnaire was distributed. This questionnaire was filled out by 68 Biology Education students batch 2021 who have contracted Multicultural Education courses. Based on the results of the analysis, it can be seen that most of the students need teaching materials that can help them in studying Multicultural Education materials. Students expect teaching materials in the form of interesting textbooks and can help them in the learning process using the case method in accordance with the syllabus used. The textbooks developed are expected to have various supporting elements such as clear and attractive pictures so that they can help students understand the Multicultural Education material being studied. This will have a positive impact on the process and student learning outcomes. This is in line with the opinion of [3], that learning videos have a positive impact on learning activities such as presentation of material, motivation, tutorials, and effectiveness in the use of time. [4] stated that pictures make students understand learning better, so that students' understanding of the subject can be further improved.

4 Conclusions

Based on the results of interviews and student needs analysis questionnaires, it can be concluded that students need Case Study-based Multicultural Education textbooks.

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