

Analysis of Students' Needs for the Development of Problem Based Learning Module Contain Character Education to Increase Creativity Competence in SMAN 1 Tarusan

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Abstract – This preliminary research aims to determine the needs of students for problem based learning modules containing character education to improve the creativity competencies of students in SMAN 1 Tarusan. This research is a descriptive research. Data obtained from the results of interviews and the results of the questionnaire needs for teachers and students. Based on the results obtained it can be concluded that (a) learning material based on *problem based learning* in SMAN 1 Tarusan is not yet available, (b) student learning outcomes are less satisfactory, (c) students agree if there are learning materials in the form of module based on problem based learning containing character education needed by students in school, (d) students agree if the module components consist of covers, preface, table of contents, instructions for use, KI, KD, Indicator, learning activities, practicum activities, evaluation, and bibliography.

Keywords – Analysis, Needs, Modules, *Problem Based Learning*.

I. INTRODUCTION

Education is a process of continuous and global change. According to Law No. 20 of 2003 concerning the National Education System, the aim of national education is to develop the potential of students to become human beings who believe in and fear God Almighty, have noble, healthy, knowledgeable, capable, creative, independent, and be democratic and responsible citizens. The purpose of national education becomes the basis in the development of character education in the learning process. According to Afriadi (2013) education is the main thing that most contributes to the formation of moral and character human beings.

Character education is interpreted as a way of thinking and behaving that is unique to each individual to live and work together, both in the family, community, nation, and country (Zamroni, 2011). According to Bialik, Bogan, Fadel & Horvatova (2015) character education can be interpreted as a process of developing values and behavior so that individuals can interact well in society. Character education is integrated into learning biology so that students have a good attitude, character and morals, telling the truth, respecting each other, being responsible for what is done, communicative, caring for the environment, being independent, religious and tolerance that are developed according to the needs and conditions of students in

Public. Related to this at the ideal level of character education reference is empowerment for independence and excellence, while at the instrumental level, important values need to be developed through education are autonomy, skills, democratic awareness, competitiveness, aesthetics, wisdom, morality, dignity, dignity, nationality and creativity (Sadia, 2013).

In developing the character of students also need to develop the ability to think creatively, in exercising their confidence in the answers and thoughts they have. The development of skills in the 21st century, makes students capable of *critical thinking*, *communication skills*, *creative thinking*, and *collaboration*. One of the skills needed in student character development is creativity (*crativity*). According to Hoerl, (2010); Sternberg (2004: 4) creativity refers to the ability to create, produce new and appropriate works.

According to Munandar (2004: 192) the ability to think creatively includes aspects of fluent thinking, flexible thinking, original thinking, and elaborate thinking. Creative thinking is a thought process that is able to provide different ideas or ideas which can then become new knowledge and answers needed (Abdurrozak. R, Jayadinata. A. K, Atun. I: 2016).

Craft (2003) believes all students can be creative, creativity involves the production of new knowledge that has an impact on the field of knowledge. The students can be said to be creative if they can solve problems with their own ideas or ideas and produce new ideas or ideas. One of the efforts to improve students' creative thinking skills in Biology is to use learning models.

One learning model that can be used is the *problem based learning* (PBL) model, because PBL learning models that have stages of orientation, organization, investigation, presentation, analysis and evaluation will help students find and find their own material or answers that are learned according to the problem given (Abdurrozak. R, Jayadinata. A. K, Atun. I: 2016). So that students who are weak in various aspects of creative thinking are expected to increase.

In learning, besides using the model also uses teaching materials in the form of modules. The module has a meaning as a complete unit consisting of a series of learning activities arranged to help students achieve a learning goal. This module was developed by inserting a *problem based learning* model in the student activities section and integrating the value of character education to students so that students can develop creative thinking skills.

Several previous studies related to the development of module based on *problem based learning* with character education and creativity competence have been successfully carried out between Rizki's researches. SK, Oka. AA, Asih. T. (2020) module based on *problem based learning* integrated character values in the material of human digestion class XI of SMA Negeri 5 Metro in the "very good" category so that it can be used to help teachers and students in the learning process. Research from Abdurrozak, R., & Jayadinata, AK (2016) science learning by using PBL modules is proven to improve students' creative thinking abilities.

II. RESEARCH METHODS

This research was conducted at SMAN 1 Tarusan, the research subjects were one biology teacher and 34 students in grade XI MIA 4. Data collection uses a list of questions for the interview, a closed questionnaire for needs. Data analysis was performed descriptively qualitative which included data collection, data analysis, data presentation and drawing conclusions.

III. RESULTS AND DISCUSSION

A. Research result

After conducting an interview with a biology teacher at SMAN 1 Tarusan in July 2019, there were a number of objectives to be followed up, namely:

1. How important is the teaching material to be developed to improve the cognitive value of students?
2. Can the module increase the value of character education and creative thinking skills for class XI high school students?

The module developed is one of the solutions to problems encountered both from the aspects of interviews with teachers and observation and analysis questionnaires for students.

Results of Questionnaire Analysis of Students' Needs

- a. The results of the analysis of the needs of students were distributed and filled out by 34 students of class XI MIA 4 at SMAN 1 Tarusan.
 1. Most students have never learned to use biology modules based on *problem based learning* with the results of 91.18% displayed on Gam bar 1.

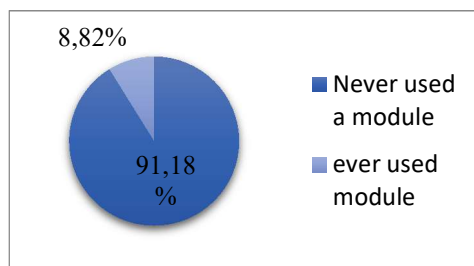


Figure 1. Students using the module

2. Teaching materials that have been used by students in the learning process are LKS 11.6%, LKPD 7%, and textbooks 81.4% shown in Figure 2.

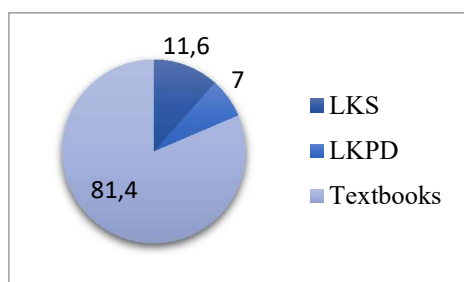


Figure 2. Learning materials that have been used by students.

3. Students agree to use a module based on *problem based learning* with character education in biology learning with the results of 82.35 % shown in Figure 3 .

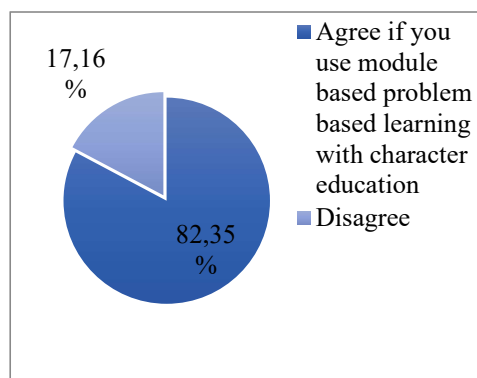


Figure 3. Students' responses to PBL-based modules containing character education.

4. There are some subject matter that is felt difficult by students, namely in the material circulation system and digestive system with the results of the questionnaire showing 35.29% and 33.82% and also seen from the

daily test scores of students who have not reached the KKM. With the result 1 shown in Figure 4 .

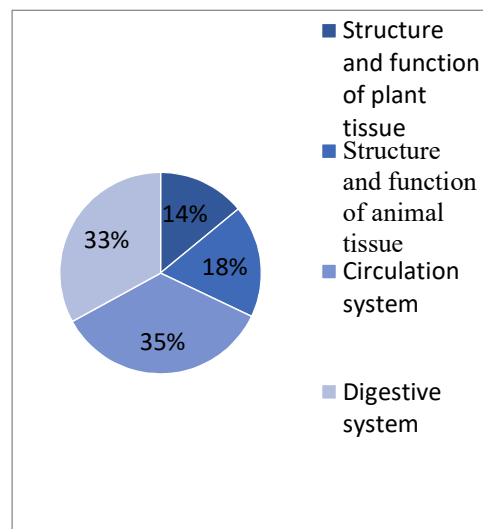


Figure 4. Response of subject matter.

5. Students agree in the biology module based on *problem based learning* containing character education containing pictures and character values that are in accordance with biological material to facilitate understanding of the material 97.06% , with results can be seen in Figure 5 .

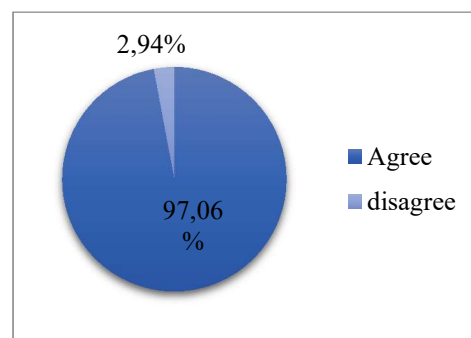


Figure 5. Student responses to the module design.

b. The results of the questionnaire analysis of the students' character education value filled by 34 students.

1. Religious aspects, before and after learning, prayer activities are carried out which is a daily routine.
2. Aspects of discipline, students leave for school on time with the results of a questionnaire of 44.11%.

3. In the aspect of tolerance, students always say politely and do not offend others, with a questionnaire result of 35.29%.
4. The creative aspect, students are able to create learning situations that can foster new thinking power with the results of an analysis of 47.05%.
5. Aspects of responsibility, students are responsible for the work done, with the results of the analysis 38.23%.
6. The aspect of curiosity, when learning takes place students always ask questions about material that is not understood, with the results of the analysis of 52.94%.

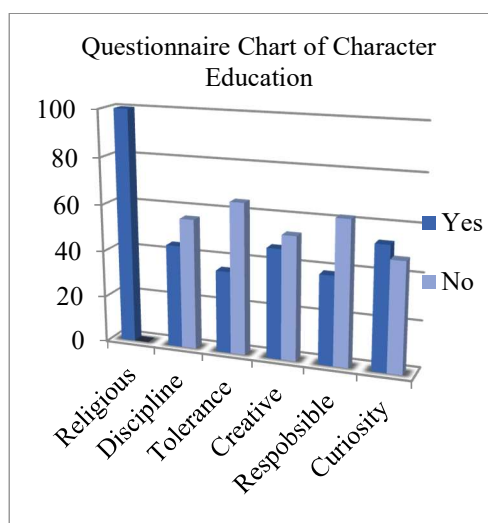


Figure 3. Students' responses to the character education assessment.

- c. The results of the questionnaire analysis of students' creativity needs were filled by 34 students.

1. In the aspect of thinking smoothly (*Fluency*) with an average questionnaire results of 32.35%.
2. In the aspect of flexible thinking (*Flexibility*) with an average questionnaire result of 29.83%.
3. In the aspect of original thinking (*Original*) with an average questionnaire yield of 26.46%.
4. In the aspect of detailed thinking (*Elaborative*) with an average questionnaire yield of 36.03%.

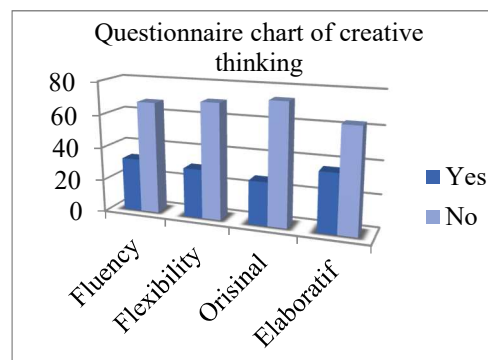


Figure 3. Students' responses to creative thinking.

B. Discussion

The results of interviews with biology teachers at SMAN 1 Tarusan, namely students at this school studied dominantly using textbooks borrowed from school libraries, worksheets, and LKPD. Teachers should be able to develop own teaching materials appropriate to the needs and characteristics of learners.

Students are less active in the learning process, seen from the learning outcomes of students that are less satisfactory, because they have not reached the minimum completeness criteria (KKM) set by the school. In addition, teaching materials with values of character education have not been developed for students to improve their creativity and attitude and moral abilities in learning.

The results of the questionnaire for students' needs were distributed and filled out by 34 students of class XI MIA 4 at SMAN 1 Tarusan in line with the results of the interview. In learning in schools students learn to use textbooks and other references. Based on the results of the interviews and questionnaire analysis needs of learners so learners agree with the development of module-based biological *problem based learning* uncharged character education to enhance the creative thinking abilities of learners.

In the module developed changes were made to the previous teaching material, namely in terms of the learning approach. The approach used in the module is a *problem based learning* model where students are required to be active in the learning process, students will be guided to solve problems related to learning material. And also, students are also taught steps in solving problems. Also in the module will be integrated the values of character education. Embedding character values is also one of the tasks carried out by the teacher. In addition to teaching guju also has the obligation to educate, teachers play an important role in educating the

nation and instilling good ethics in future students (Nurhaidah & Musa, 2016).

In the research of Deperia & Lufri (2019) it is known that the PBL model can help teachers to direct students in finding concepts through activities in the module, so students actively build students' knowledge, besides character education can help students in fostering positive attitudes and the character of students, be it honest, disciplined, responsible, caring, polite, religious, independent, friendly, and communicative.

Furthermore, according to Rizki. SK, Oka. AA, Asih. T. (2020), PBL learning models contain characters that can be developed by students indirectly in the learning process, the main characters contained therein are the characters of responsibility, discipline, cooperation, communicative and creative. The PBL model also requires students to have the ability to think creatively, learners who are creative, active in discussions, have new and productive ideas in learning that will be able to improve their ability to think creatively. According to Abdurrozak, R., & Jayadinata, AK (2016) learning science by using the PBL model has been proven to improve students' creative thinking abilities compared to using conventional models.

IV. CONCLUSION

Based on the results of data analysis of students' needs from the development of problem based learning modules based on character education that:

1. Student learning outcomes are low because there are no biology modules based on problem based learning with character education in schools.
2. The still low value of character education for students in class.
3. Students are less active in learning which causes the low creative way of thinking of students.

Based on the results of the needs analysis data, it can be concluded that the biology module based on *problem based learning* containing character education can improve student learning outcomes, can also improve character values, and can increase students' creativity in learning.

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