



## The Development of Teaching Materials in Addictives Substances and Psychotropic on Problem Based Learning and Conservation in MA

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### Abstract

Development of teaching materials is an activity that can broaden and deepen the learning materials so that more applicable. Excess use of materials is compiled detailed material tailored to the student's ability level and learning objectives. This research aims to develop teaching materials addictive and psychotropic substances-based Problem Based Learning and conservation in MA with kriteria effective. This type of research Research and Development (R & D) to study measures following the 10 steps according Sugiyono research. Readability test is done with the subject 36 students and the implementation of teaching materials made on the subject of 145 students. The results showed a score validation by expert media teaching materials and the material is very valid. The results of students' cognitive learning consist of classical completeness amounted to 80.56% of students received grades above KKM and N-gain of 97.2% of students obtain N-gain in the criteria for moderate to high. The result of the strengthening score caring attitude within the criteria very well (89.14%). Based on the results, it can be concluded that the teaching materials addictive and psychotropic substances based on Problem Based Learning and conservation are developed effectively used for student learning MA.

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## **INTRODUCTION**

Based Permendiknas 2007 on the standard process, that the learning process of planning includes the syllabus and Learning Implementation Plan (RPP). Preparation of the RPP should be tailored to the student's character and followed by the selection of appropriate learning models. Problem Based Learning is a learning model that trains students to solve problems and deliver solutions obtained from the discussion, so that students are able to actively participate in learning activities (Kurniahtunnisa et al., 2016). Problem Based Learning in Curriculum 2013 is a model of learning that develops competencies and character values into learning. Competence development supported with appropriate learning resources, so as to create a meaningful learning process.

Biology teacher interview result that the materials used for psychotropic material is not yet complete. Book Standard Electronics (BSE) used in biology yet included learning material on the impact of drug use based on the type, how the drugs on the nervous system and tips tackling drug abuse. BSE instructional materials can not meet the learning objectives. Limitations of the material in the teaching materials do not impact the achievement of basic competencies (KD) desired by the curriculum. In addition to the limitations of matter, the other problems relating to the material psychotropic MAN 01 Starch is the allocation of instructional time of eight hours Lessons (JP) became a JP, teaching materials not load content strengthening the student's character,

The learning objectives are the psychotropic materials students can evaluate self-understanding of the dangers of the use of psychotropic substances and their impact on personal health, the environment and society. In line with the purpose of learning the necessary link between the subject matter of the case / problem of drug abuse as well as the impact of the strengthening of the character. Unnes as conservation university responsive and concerned about environmental issues and culture develop conservation values through strengthening character education. Values conservation character Unnes among others religious, honest, caring, tolerant, democratic, polite, smart and tough (Ridlo & Irsadi, 2012). The purpose of education is character conservation Unnes fostering student personality in accordance with noble character in life.

Strengthening character education needs to be done because of the moral crisis that occurred among teenagers. Promiscuity, rampant levels of violence on children and adolescents, crimes against friends, theft, drug abuse and pornography is an example of a moral crisis teenager who has yet to be completely resolved. Drug users in Central Java rose to 57 people per day. Drugs are often used by teenagers are smoking. The nicotine content in cigarettes causes the cigarettes belonging to the addictive substance. The earlier a smoker to quit smoking, the greater the chances of a smoker to have a healthy life without the physical and psychological dependence on nicotine opiate substances (Wibowo, 2017). Strengthening character education and knowledge of adolescents will be kind as well as the dangers of drugs that lower causes most drug users are teenagers. Efforts should be made to reduce these problems is their resolute efforts of the government and parents from an early age for teens to avoid drugs. So the purpose of this research is the development of teaching materials based on Problem Based Learning and conservation in MA.

## **RESEARCH METHODS**

This research is the development or *Research & Development* with the object of trial MAN 01 Pati. Sample collection technique is saturated sampling with a sample of 145 students. Step study follows research R & D according to Sugiyono which includes the identification of the potential and problems, data collection, design of teaching materials, validation of teaching materials by media experts and material, design revisions, test readability by 36 students, the revised test results readability, test wide scale teaching materials. The research data covers learning outcomes and attitudes. The results were analyzed with the acquisition of cognitive learning classical completeness student achievement value by 72% of students

reached a value of  $\leq 75$  and by 72% of students reached the N-gain in the criteria for moderate to high. The attitude was analyzed by quantitative descriptive.

## RESULTS AND DISCUSSION

Development of teaching materials addictive and psychotropic substances based on Problem Based Learning and conservation effectively used if the results of the validity of the criteria layak. Validasi teaching materials teaching materials made by two experts, namely subject matter experts and is well worth mediadalam criteria used as a learning resource. The development of learning resources includes several components, among others, understanding concepts, helping students to construct knowledge, increase the value of the character and form an effective product in terms of validating the results of teaching materials (Sari et al., 2013).

The results of the validity of teaching materials by experts form the basis of small-scale trials. Small scale test results through a readability test given to students by the number of respondents 36 students in a very decent criteria (89.18%). The function of teaching materials are used as a medium that can mambantu students to understand the material, increase student motivation and increase the potential for students to learn independently (Febrina et al., 2015). Indicators of the effectiveness of teaching materials developed are the result of students' cognitive learning and appreciation of the character of students. Cognitive learning outcomes of students after using teaching materials addictive and psychotropic substances based on Problem Based Learning and conservation ketuntaan obtained through classical and N-gain students. Data from classical completeness and N-gain can be seen in Table 1 and Table 2.

**Table 1.** Complete Classical Students

Information	Class			
	XI MIA	XI MIA	XI MIA	XI MIA
	1	2	3	4
The number of students	36	37	37	35
students completed	29	28	28	31
Students incomplete	7	9	9	4
Classical completeness of each grade (%)	80.6	75.7	78.4	88.6
<b>Percentage Complete Classical</b>	<b>80.56</b>			

**Table 2.** Results of N-Gain students

Category	Criteria	The number of students	Percentage
$0.70 \leq g \leq 1,00$	High	45	31%
$0.30 \leq g < 0.70$	moderate	96	66.2%
$0.02 \leq g < 0.30$	Low	4	2.75%

The results of students' cognitive learning include pretest and posttest results. Posttest administered after 3:11 KD learning process is completed, which is intended as a means of evaluating students. Pengembangan teaching materials incorporating learning about and selecting the right method can improve student learning outcomes (Jannah et al., 2018). The results of classical completeness of students as much as 80.56% of students received grades above KKM. The results of the classical completeness effectiveness indicators have met the development of teaching materials, namely by 72%. N-gain the results obtained for 97.2% of students obtaining N-gain in the criteria for moderate to high. Results N-gain consisted of as many as 45 students in the high criteria (31%), 96 students in the criteria was (66.2%) and 4 students in the lower criterion (2.75%). Achievement of the cognitive learning shows that learning by using effective teaching materials to help students understand the material psychotropic substances. The higher the students'

knowledge of the material misuse of addictive and psychotropic substances, the higher the learning results obtained (Lisdiana et al., 2017).

The achievement was due to the attractive presentation of instructional materials and a lot of pictures and the selection of striking colors so that students interested in learning the material psychotropic substances. Student learning outcomes can be increased if students feel happy with the learning process they do (Rigos & Ayad, 2010). In addition, there are the characteristics of teaching materials such as Bio Supplements to broaden students and invitation to apply the caring attitude of students to the anti-drug campaigns through the slogan of the main attraction. Utilization problems in learning is considered effective so that students feel happy to follow the learning process and the material presented can be understood by students. Effectiveness of Problem Based Learning can be seen from the participation of students in the pouring ability and opportunity to use the skills of the impact on the improvement of student learning outcomes (Scott, 2014). Indicators of the effectiveness of the development of teaching materials seen from the results of the assessment caring attitude of students. Data analysis results caring attitude can be seen in Table 3.

**Table 3.** Attitude Concerned Student Assessment Analysis

Criteria	The number of students	Percentage
Very high	145	100%
High	0	0%
High enough	0	0%
Not high enough	0	0%
Low	0	0%

Teaching materials are addictive and psychotropic substances based on Problem Based Learning and conservation have a positive impact on the strengthening of the caring attitude of students towards drug abuse. The character values developed through the learning process (Sukaesih & Kartijono, 2014). The results of the questionnaire validity criteria caring attitude of students in a very decent (79.16%). Results matter in the criteria, the assessment is very high (87.33%). These results show the students agreed with the refusal of drug use that would negatively impact mental health and are supported by the products they produce in the form of anti-drug posters and results of questionnaires strengthening caring attitude. Narcotics have an adverse effect on health and mental (Taufik, 2015). In addition to the attitude questionnaire, the results of the questionnaire responses of teachers and students is very good (95.45% and 86.6%).

## CONCLUSION

Based on the results of research and discussion can be concluded that the teaching materials addictive and psychotropic substances based conservation Problem Based Learning and learning materials effectively used for psychotropic MA.

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