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USE OF SOCIAL MEDIA ASSISTED INQUIRY LEARNING MODEL

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ABSTRACT:

In the 2013 Curriculum, it is stated that science learning should be carried out with scientific inquiry to foster the ability to think, work and have a scientific attitude and communicate it as an important aspect of life skills, development of information and technology as fast as possible, social media, students are familiar with the use of gadgets, regularly. General industrial era 4.0 has positive and negative impacts related to education. The purpose of this study is to develop a social media assisted inquiry model. The research that is planned is a research development (Research and Development). The results of this study are expected to produce a product in the form of a learning model, learning tools consisting of: lesson plans, teaching materials, student activity sheets, science test instruments and critical thinking skills and a thinking tendency questionnaire.

Keywords: Inquiry Learning Model, Social Media.

INTRODUCTION:

The 2013 curriculum states that science learning should be carried out with scientific inquiry to foster the ability to think, work and have a scientific attitude and communicate it as an important aspect of life skills. The latest developments in the world of learning orientation education are directed at developing thinking skills of students. Thinking skills according to Marzano (1994) are divided into three categories, namely: self regulated thinking, critical thinking and creative thinking.

Higher-order thinking skills are one of the main goals of learning in the 21st century. The vision of 21st century integration depends on the mastery of student skills related to subjects, several skills students need to have, including: critical thinking, problem solving, good communication and collaboration, literacy. information and technology, innovative and creative, global competence and environmental literacy (Partnership For 21st Century Skills, 2009).

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Learning technology and information needs the attention of the world of education. The era of the digital world which is better known as the industrial era 4. The development of information and technology is as fast as it is, social media is fast. Students from elementary to tertiary level are familiar with the use of gadgets. In general, the industrial era 4.0 has positive and negative impacts related to education. One of the positive impacts of the 4.0 industrial revolution will make social communication easier with various kinds of media or learning resources. The general negative effects of the 4.0 industrial revolution include: cyber crime, fake news "hoaxes" and drug trafficking and rampant.

Social media and chat and other internet facilities are one of the characteristics of the 4.0 industrial revolution which can be an opportunity or a threat. Through social media, it is undeniable that the exchange of information takes place very quickly. In the world of education learning resources such as electronic books or learning videos can easily be shared among students so that teachers or other educators are not the only source of learning in learning. Therefore, teachers are required to use existing facilities to support learning. Samuel Kai et al (2017) state that teachers as educators can design learning that utilizes features in social media to support teaching and learning in schools.

Formulation of the Problem:

Based on the background of the problem above, the problem to be solved through this research is "What is the feasibility of the inquiry learning model assisted by social media to increase thinking tendencies, critical thinking skills and mastery of science concepts for junior high school students?

The above problems are described in the form of research questions as follows.

I. What are the steps for developing a guided inquiry learning model assisted by social media that is developed? The descriptions of the questions are as follows.
   1. What is the validity of the developed social media assisted inquiry learning model?
   2. What is the practicality of the social media assisted inquiry learning model developed for junior high school students?
   3. How effective is the social media assisted inquiry learning model developed for junior high school students?

The research questions in section (3) above are further broken down into operational research sub questions as follows.

(1) How to increase the tendency to think after the application of learning with the inquiry model assisted by social media?
(2) How to improve thinking skills after the application of learning with the inquiry model assisted by social media?
(3) How to increase understanding of the concept of science after learning with social media assisted inquiry learning model?
(4) How are student activities during learning using social media-based inquiry models?

II. How is the quality of the developed interbakomed learning model? The descriptions of the questions are as follows.
   1. What is the validity of the developed guided inquiry learning model assisted by social media?
   2. What is the practicality of the inquiry learning model assisted by social media developed for junior high school students?
   3. How is the effectiveness of the inquiry learning model assisted by social media developed for junior high school students?

Research Purposes:

Based on the formulation of the problem above, the aim of this study is to develop an appropriate social media-assisted inquiry model to increase thinking tendencies, critical thinking skills and mastery of science concepts for junior high school students. Based on these objectives, the specific objectives of the study are as follows.

1. Produce a valid, practical and effective social media-assisted inquiry learning model to improve thinking tendencies, thinking skills and learning outcomes of physics science in junior high school.
2. Produce appropriate social media-assisted inquiry learning tools (practical, practical and effective) to increase thinking tendencies, thinking skills and understanding of science concepts.

Practical Benefits

Research is expected to provide practical benefits to the parties involved, including:

a. For students, it can increase the tendency to think, thinking skills and mastery of science concepts.
b. For teachers, it can be an alternative learning model that can increase thinking tendencies, thinking skills and mastery of science concepts.
c. For education practitioners, this can be an empirical evidence that can enrich the results of similar research in increasing thinking tendencies, critical thinking skills and conceptual mastery.

RESEARCH METHODS:

Types of Research:

The research that is planned is a research development (Research and Development) in the field of education. This research is called development research because it focuses on developing inquiry learning models assisted by social media to increase thinking tendencies, critical thinking skills and understanding of science concepts.

Research Design:

The research and development design is carried out in three stages, namely: the preliminary stage, the model development stage and the model implementation stage.

Research Subject, Place and Time:

The research subject is the guided inquiry learning model assisted by the social media community which is short in the acronym "Social media assisted inquiry". The subject of the trial was junior high school students in Gorontalo Province. The sampling technique used purposive sampling with the criteria for grade VII students

Operational Definition of Variables:

1. The validity of the learning model "Social media assisted inquiry" is an assessment made by a team of experts on the learning model which includes content validity (relevance) and construct (consistency). The learning model is said to be valid, if the expert team states that the learning model developed is based on strong theoretical rationale and there is consistency among the components of the model internally. To assess the validity of the learning model using a validation sheet instrument. The criteria for deciding that the learning model "Social media assisted inquiry" has an adequate degree of validity if the validity is in the valid and very valid category.
2. The practicality of the learning model "Social media assisted inquiry" is a measure of whether or not a learning model is good. The practicality of the learning model "Social media assisted inquiry" is seen from the implementation of the syntax of the learning model in classroom learning activities observed by two observers using the observation sheet instrument. The learning model "Social media assisted inquiry" is said to be practical if the level of implementation of the learning model is in the high category.
3. The effectiveness of the learning model "Social media assisted inquiry" is a measure of the quality of the learning model through increased understanding of concepts, critical thinking skills and thinking tendencies, observations of student activities in learning, student responses.

Method Of Collecting Data:

The data collection method in this study was adjusted to the problem or research objective described in Chapter I. The aim was to develop

a learning model "Social media assisted inquiry" that met the eligibility criteria, namely: validity, practicality and effectiveness.

Table 1. Data collection methods according to the required data

Criteria	Necessary data	Data Collection Methods	Data Collection Tools
Validity	The quality of the learning model prototype	Expert judgment (validation)	FGD validation sheets and learning tools
Practicality	Implementation of learning	Observation	KBM observation sheet
Effectiveness	Critical thinking skills	Paper and Pencil Test	Critical thinking skills test (description)
	Concept understanding	Multiple choice form write test	Science Comprehension Test (multiple choice)
	Student activities	Observation	Student activity observation sheet
	Respons	Questionnaire	Thinking tendency questionnaire Questionnaire Responses to Learning "Social media assisted inquiry"

Data Analysis Techniques:

The data analysis technique in this study is in accordance with the objectives or research problems consisting of: quantitative and qualitative descriptions; analysis-synthesis, calculating N-gain, and paired t test.

RESULTS AND DISCUSSION:

A. Results:

1. Learning Model Development:

The purpose of this research is to produce products in the form of learning models, learning tools consisting of: Learning Implementation Plans (RPP), Teaching Materials, Student Activity Sheets (LKS); Science test instruments and critical thinking skills and a thinking tendency questionnaire for students in science concepts. In order for these objectives to be fulfilled, first the development research is used with the design of the R&D method using the Borg & Gall (2003) streamlined by Sukmadinata et al. (Sukmadinata, 2010) resulting in 3 stages, namely: preliminary study, model (product) development, and product testing and implementation.

2. Description Of The Stages And Results Of The Learning Model Development:

1) Preliminary Study:

The Preliminary Study is the initial stage of development research carried out by conducting field surveys and literature studies. This field survey was conducted with the aim of obtaining data about the conditions and empirical situations of science learning. The aspects studied included: (1) teachers' perceptions of teaching and teacher self-actualization in improving the quality of learning, (2) planning, implementing, and evaluating learning, (3) student interest in science subjects, level of self-confidence and student activity in learning, as well as student responses to the implementation of learning, and (4) the availability and use of learning environment facilities and facilities so far. While the literature study is carried out with the aim of collecting various theories and concepts about learning models and also examining various studies that have been carried out related to improving the quality of the learning process in Higher Education.

2) Model Development (Product):

The second stage carried out in this research is the development of a learning model which includes the steps: preparation of the design / initial draft of the learning model and the implementation of the learning model

trial. From the results of the trial implementation of this learning model, it is obtained a final design that is ready to be validated.

3) Product Testing and Implementation:

Model testing is carried out in order to validate the model, namely to determine the validity, practicality and effectiveness of the learning model "Social media assisted inquiry".

Data Analysis:

Validity is based on the accuracy or accuracy of a measurement result. The measurement in question is to determine the extent to which the aspect to be achieved and the score stated by the measurer or someone. Validity describes the extent to which the measuring instrument (test) actually measures what it is actually trying to measure.

CONCLUSION:

This research will be developed for inquiry learning model assisted by social media in science subjects.

REFERENCES:

1) Borg, W., & Gall, M. (2003). Educational research (An Introduction). USA: Pearson Education.
2) Marzano, Robert J., et.al. (1994). Assessing Student Outcomes: Performance Assessment Using the Dimensions of Learning Model. Pittsburgh: ASCD.
3) Partnership For 21 St Century Skills. (2009). The mile guide. Milestones for improving learning & education.
4) Republik Indonesia. (2013). Permendikbud No 64 Tahun 2013 tentang Standar Isi. Kemendikbud. Jakarta.
5) Republik Indonesia. (2013). Permendikbud No 65 Tahun 2013 tentang Standar Proses. Kemendikbud. Jakarta.
6) Republik Indonesia. (2016). Permendikbud No. 23 Tahun 2016 tentang penilaian. Kemendikbud. Jakarta
7) Republik Indonesia. (2013). Permendikbud No 68 Tentang kerangka dasar dan struktur kurikulum SMP dan MTs. Kemendikbud. Jakarta.
8) Samuel Kai Wah Chu , Rebecca B. Reynolds , Nicole J. Tavares, Michele Notari , Celina Wing Yi Lee (2017). 21st Century Skills Development Through Inquiry-Based Learning: From Theory to Practice 1st ed. 2017 Edition. This Springer imprint is published by Springer Nature. Singapore.