



## IMPLEMENTATION OF CHARACTER VALUES THROUGH LEARNING OF NATURAL SCIENCES USING THE GRUB INVESTIGATION MODEL

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<p><b>Received:</b> 7<sup>th</sup> September 2021 <b>Accepted:</b> 7<sup>th</sup> October 2021 <b>Published:</b> 25<sup>th</sup> November 2021</p>	<p>Science is a related conceptual framework that provides a place of critical study and testing using scientific procedures by other experts in the same field that is thus systematic, objective, and general. The 2013 curriculum is a new curriculum that contains personality suppression factors in each Basic Competency (KD). With the personality applied in every IPA education wants to provide a good / praiseworthy attitude from an early age. The age of elementary school students (SD) is a very suitable age for planting and personality development. The cultivation of personality from an early age will be a provision in the future so that it can prepare learners as the next generation of citizens and the state, because of the ethical and moral content listed in it. With the curriculum of 13 being the handle of educators to carry out the steps of the educational process, the results of this thinking create personality learning is very efficiently applied in IPA education through the grub investigation model because IPA education does not want to be separated from the products, processes, and behavior of learners towards science.</p>

**Key Words:** Character education, Curriculum 2013

### INTRODUCTION

Based on Law Number. 20 YEAR 2003 on the national learning system (Sisdiknas) that national education plays a role in improving skills and forming the nature and civilization of a dignified nation in order to educate the life of the nation, aiming to improve the ability of learners to become human beings who believe and fear God Almighty, noble, healthy, knowledgeable, capable, creative, independent, and become a democratic country society responsibly. The function and purpose of national learning is realized in the form of a curriculum that is a design and learning process as an answer to the challenges of the community, citizens, and the nation as guidelines for the implementation of educational activities to achieve learning goals. The 2013 curriculum that was implemented in 2013 provides a great discourse for many

schools, especially for educators who will implement it in learning.

From the above discourse can be described if one of the newities of science is curriculum 2013, curriculum 2013 is implemented because the pattern of education centered on learners so that it can make learners active in the learning process, learning at this time is not 100% centered on teachers only but on learners so that it can form an active educational pattern in terms of cognitive realm, affective, as well as psychomotor.

In the Regulation of the Minister of Education and Culture of the Republic of Indonesia number 67 of 2013 on the basic framework and structure of the curriculum of the elementary school / madrasah ibtidaiyah explained that the 2013 curriculum aims to prepare Indonesian people to have the ability to live as individuals and citizens who believe, productive, creative, innovative, and affect and able to contribute to community life, nationality, state, and world civilization. Reviewing the objectives of the 2013 curriculum listed ethical values that must exist in the people of Indonesia, especially in learners who will become the next generation of the nation.

IPA / science has a very large opportunity in instilling ethical values in learners. This is because the IPA curriculum is systematically structured so that learning can take place interactively, inspiring, exciting, challenging, motivating learners to participate actively, and provide a decent space for creativity, independence, and child psychology. Not only that, learners are expected to carry out observations, think critically, think creatively, and have curiosity. This is also mandatory in supported by the right model, the model used is grub investigation which helps teachers in shaping the personality of learners when the learning process takes place.

### RESEARCH METHOD

The research method used here is literature research is to carry out theoretical studies of reference books and previously relevant research results to obtain a theoretical foundation or ideas to solve the problems studied. The scope of this research is character education at the elementary school level, especially in the content of natural science lessons. The main study materials in this research are character education books as well as IPA education and learning at the elementary school level as well as journals of research results related to character education in the field of elementary IPA.

### RESULTS AND DISCUSSION

In general, Science is understood as a science that is born and passed through the steps of observation, problem formulation, hypothesis preparation, hypothesis testing through experiments, withdrawal of probability, and the development of concepts or theories so that the values of IPA can be matched in IPA learning are: (1) Work skills, thinking regularly and systematically according to the steps of the scientific method; (2) Skills and skills in making observations, using experimental tools to solve a problem; (3) Have the necessary scientific attitude in solving problems both in relation to science lessons and in life.

Therefore, natural science learning is one of the learnings utilized by teachers to form the character of learners, the character that is encouraged by the teacher himself is that learners can build a sense of tolerance, communication, and cooperation among learners, through grub investigation methods where the grub investigation model is one of the learning models that adhere to a cooperative approach that as we know this model can invite participants. Learn to investigate things in groups and develop cooperation skills (Arends & Kilcher, 2010).

Steps that teachers need to take in applying grub investigation models to IPA subjects with light matter and its properties. Light is a magnetic wave that can be captured by the eye. The properties of light itself include: light strikes straight, light can penetrate clear objects, light can be reflected, and light can be refracted. Various kinds of optic devices include: eyes, microscopes, lup, telescopes and cameras.

Through grub investigation teachers can share groups with learners so that several groups are formed that will later discuss light matter and its properties, students are asked to find information related to the material learned through the sources and media that have been provided, after which learners will present the results of group work, from the steps carried out by the learners themselves are not realized that they have been Forming their own character where the character they arise is tolerance to themselves and group friends can communicate well with their own group so that the exchange of thoughts from there learners will understand what cooperation means.

Through the subjects of science of natural knowledge in light matter and its properties and using grub investigation learning models are expected to form character education in learners, it is expected that learners are able to independently improve and use their knowledge, can review, analyze, identify, and personalize character values and noble morals so that they are manifest in everyday behavior and at the level of educational institutions.

### DISCUSSION

Based on the results and discussion above we can already find out by implementing the grub investigation learning model in IPA learning with light material and its properties can help teachers in shaping the character of learners. Character is value education, ethical education, moral education, character education aimed at developing the ability of all school residents to give good decisions, transparency, maintaining what is good and creating that goodness in everyday life wholeheartedly (Balitbang, 2011).

Characters who want to be realized by teachers through IPA learning with grub investigation model are toleration, communication and cooperation. Tolerance is mutual respect for each other, especially in a difference. The differences in question can vary, from differences in ethnicity, culture, religion, to physical condition, learners are expected to have an attitude of tolerance in themselves because tolerance is very important in our country. Communication is a process of conveying information (messages, ideas, ideas) from one party to another. In general, communication is done verbally or verbally that can be understood by both parties. Learners must have good communication with peers and the wider community by training learners by being able to communicate well can help them in their daily lives. While cooperation can be interpreted as one of the interactions carried out by participants so that all can be active in performing tasks given by teachers.

Through grub investigation, it is clear that teachers are able to realize the character that is the goal in learning with steps made by teachers in the learning process can provoke learners not only active but can form a roster of participants in the village itself.

### CONCLUSION

Natural Science is a systematic science consisting of scientific products, processes, and attitudes. Natural Science Learning is the process of aligning Natural Sciences that covers cognitive, affective, and psychomotor aspects. Through Natural Science Learning learners can form their character but still directed or bombed by the teacher itself, do not forget the teacher must also use the right learning model on the material taught so that the learning goals are given by teachers and learners are achieved. The essence of character education is to instill ethical values in every

learning activity so that learners have good habits from an early age. Learning of Natural Sciences based on character education is to include ethical values in every material of Natural Science.

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