

APPLICATION OF CONSTRUCTIVISM APPROACH TO IMPROVE THE QUALITY OF LEARNING GEOGRAPHY

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ABSTRACT

The constructivism approach is one approach in learning that is appropriate to encourage participation, activity and creativity, and independence of students in learning activities. This is supported by the concepts and understandings contained in the underlying theory. The constructivist approach focuses on how students build and discover their knowledge so that learning will be more interesting. Geography is a science that studies the phenomenon of the geosphere that is spread over the earth's surface with its diversity. Learning geography will be more interesting if it is carried out with a constructivist approach, because in learning students are not passive objects, but will be encouraged to be active, and creative, build their knowledge and be able to apply the information they have in understanding, analyzing and solving problems of geographical phenomena themselves. The application of the Constructivism approach in geography learning can improve the quality of geography learning. This can be seen through interactive learning with two-way communication, the level of participation of students involved in learning is getting higher, the learning motivation of students is getting higher, the ability of students to understand concepts is getting better, and the ability of students to solve geographical problems is also getting better.

Keywords: Constructivism Approach, Geography, Learning Quality.



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INTRODUCTION

Education is one of the important aspects of development in Indonesia. Because education is a means to improve the quality of human resources. Article 1 of the 2003 National Education System Law (UU SISDIKNAS) defines education as: "A conscious and planned effort to create a learning atmosphere and learning process so that students actively develop their potential to have religious spiritual strength, self-control, personality, intelligence, noble character, and skills needed by himself, society, nation, and state. To realize the quality of quality education, various efforts have been made by the government. Improving the quality of education can be done in various ways, one of which is by trying to understand how students learn and how the information obtained can be processed in their minds so that it becomes theirs and lasts long in their minds. This means that the knowledge possessed by the students themselves is obtained and built on their own based on the learning experiences that each of them undergoes. Therefore, it is necessary to strive for the application of the right learning climate to create graduates who are truly creative, innovative, and willing to advance through the use of learning resources to develop their full and optimal potential.

Geography is a science that studies the earth as a living space and examines how the characteristics, and properties of the earth and the dynamics that occur on the earth's surface. Geography is very useful to support life throughout life and encourage the improvement of life. The scope of his field of study allows humans to obtain answers to

questions from the world around them which emphasizes the spatial and ecological aspects of human existence. The field of study of geography covers the earth, its aspects, and the processes that shape it, the causal and spatial relationships of humans with the environment, and human interactions with places.

Geography is the first formal subject that brings students direct contact with the realities encountered in life and provides understanding and knowledge of the dynamics and relativity of the processes that exist in natural phenomena, the geography science laboratory is very complex which includes learning rooms, school environments and community environments where students are located, thus geography should be an interesting subject. The fact that can be seen is that very many students see learning geography in schools as unattractive to learn. This resulted in the low motivation of students to study geography subjects which resulted in the low achievement of learning outcomes. One of the reasons why geography lessons are not interesting lies in the learning approach used. The development of geography learning design has not used a constructivist approach that emphasizes formal objects but is still confined to a behavioristic approach with a strategy for delivering geography aids material so that it is less able to generate interest in learning. As a result, most students find geography boring. Such an atmosphere tends to cause students to be trapped in learning that emphasizes memorization. Students do not get their knowledge and understanding through a series of experiences but through efforts to memorize a concept or process without understanding the concept or process that is memorized. To encourage the increase of students' motivation in studying geography, it is very necessary to have a geography learning design which is a scenario of how the management of geography learning is carried out. As the concept of learning design, namely the practice of compiling communication technology media and content to help make the transfer of knowledge effective between teachers and students. In this case, the teacher's ability to select and design learning resources is required which is then actualized in the form of media in learning activities. This means that reforms in learning geography must be carried out in all aspects of geography learning, such as on learning resources because a wrong understanding of learning resources has led to teacher-centered learning as a learning resource. A new approach to learning geography that provides opportunities for the active process of students constructing their geographic insight, utilizing diverse learning resources, providing opportunities for students to conduct field studies or archival studies through optimal use of maps, and divergent geographic thinking in geography learning with a constructivist approach. . This constructivist approach is by the essence of man as a geographer. A constructivism approach is a model approach in learning that emphasizes the formation of knowledge by the students themselves actively, creatively, and productively based on the knowledge that has been previously owned. The application of the constructivist approach aims to make learning not just memorizing concepts or formulas but the need for activities to build knowledge and understanding through activities carried out by students themselves.

The reason for choosing the constructivism approach is based on several opinions, including: First, in constructivism learning, students themselves must find, understand, transform or even revise existing information or problems to obtain problem-solving or to find solutions (Marsitin, 2013). Second, through the constructivism approach, students are facilitated in the process of building and discovering their knowledge so that learning will be more interesting and fun for them. Third, in learning with a constructivist approach, how students can acquire and build knowledge takes precedence over how much students acquire and remember knowledge.

METHODS

The method used in this paper is descriptive qualitative and literature study. In essence, descriptive qualitative research is a method of examining the status of a group of people, or an object to make a systematic, factual, and accurate description, picture, or painting of the facts being investigated. This qualitative descriptive study aims to describe what is happening at this time. That is, this research describes, records analyzes, and interprets the conditions that are currently happening. In other words, descriptive qualitative research aims to obtain information on the existing situation. While the literature method is a data collection method that is carried out by taking the required data from the related literature.

RESULTS

The concept of learning geography

Geography is the study of natural phenomena and life on earth and the interaction between humans and their environment regarding spatial and territorial relationships or arrangements. Natural phenomena and life can be seen as a result of natural processes that occur on earth, and can also be seen as activities that can have an impact on living things that live above the earth's surface (Hermon *et al*, 2021). According to Chandra *et al* (2021), geography learning is essentially learning about the spatial aspects of the earth's surface which are the overall phenomena of nature and human life with regional variances. Therefore, it can be concluded that learning geography in schools is learning about the nature of geography which includes aspects of space, environment, and territory with the object of geography study being the geosphere which consists of the atmosphere, lithosphere, hydrosphere, and biosphere which is adjusted to the level of psychological development of students at school. education levels.

The characteristics of learning Geography in Indonesia must have at least six characteristics, namely: 1) Centered on students and teachers playing the role of teachers and facilitators proportionally; 2) Oriented to the development of geographical knowledge, attitudes, and skills as well as an integrated geographical perspective; 3) Creating a fun, interactive, democratic, and collaborative classroom atmosphere; 4) Educators and students both learn in their respective contexts; 5) Develop students' analytical skills/HOTS through the provision of challenging and contextual questions/tasks/problems; and 5) ICT-based and rich in learning resources.

Constructive approach concept

Woolfolk (2005) suggests the definition of a constructivist approach as "a learning design that emphasizes the active role of students in building understanding and giving meaning to information and events experienced." This corresponds to Gagnon & Collay (2001) that "... the constructivist approach refers to the assumption that humans develop themselves by involving themselves in both personal and social activities in building knowledge". Jonassen (2003), suggest several rational reasons behind the use of a constructivist approach in the learning process, namely as follows: 1) all knowledge and learning outcomes are individual construction processes; 2) knowledge is a construction of events experienced from various points of view or perspectives; 3) the learning process

must take place in a relevant context; 4) learning can occur through learning media; 5) learning is an inherent social dialogue; 6) students who learn have a variety of different backgrounds. Multidimensional; and 7) understanding the knowledge learned is a major human achievement.

The purpose of the constructivist approach to learning is that students can find, understand, and use the information or knowledge that has been learned. Learning activities with constructive design can occur through a series of activities experienced by students through personal processes, namely where new knowledge is obtained through learning activities that are carried out and experienced by themselves by transferring information through concepts or knowledge and experiences that have been previously owned. In constructing knowledge, students can obtain it through the help of adults or teachers. This constructivist learning process occurs by involving students' physical and mental activities in processing, organizing, and structuring all concepts to obtain new concepts or knowledge.

A learning system design with a constructivist approach is needed by teachers (Gagnon & Collay, 2001; Suasti et al., 2018). The design model includes a constructivist learning theory-based methodology. The main emphasis in constructivism is the learning situation, which views learning as contextual. Learning activities that allow learners to contextualize information should be used in designing a learning media. If information is to be applied in multiple contexts, then learning strategies that promote multi-contextual learning must be used to ensure that learners can apply the information broadly. Learning is moving away from one-way learning to knowledge construction and discovery. Implementation in learning is as follows:

- ☞ Learning must be an active process. To keep learners active is to engage in meaningful activities resulting in a high-level process, which facilitates the creation of personal meaning.
- ☞ Learners construct their knowledge and not only accept what is given by the instructor. Knowledge construction is facilitated by good interactive learning, because students must take the initiative to interact with other learners and with instructors, and because the learning agenda is controlled by the learners themselves.
- ☞ Working with other learners provides learners with real-life experiences through group work, and allows them to use their metacognitive skills.
- ☞ Learners must be given control of the learning process.
- ☞ Learners should be given time and opportunity for reflection. When learning online, students need to reflect and internalize information.
- ☞ Learning must be made meaningful to students. Learning materials should include examples that relate to the learner so that they can receive the information provided.
- ☞ Learning should be interactive and promote higher levels of learning and social presence, and help develop personal meaning. Learners receive subject matter through technology, process the information, and then personalize and contextualize that information.

The constructivist learning development model has several characteristics, including 1) the learning development process is recursive, non-linear, and chaotic; 2) design is reflection and collaboration; and 3) goals emerge from design and development work; 4) learning emphasizes learning in a meaningful context; 5) formative evaluation determines; and 6) subjective data is more valuable. One of the models used in the constructive learning approach is the CLD model proposed by Gagnon & Collay (2001). The CLD proposed by Gagnon & Collay (2001) includes situation, grouping, association, questioning, presentation, and reflection. The constructivist design model consists of six

components, namely 1) situations, in the form of learning objectives and tasks that students need to complete; 2) grouping, carried out randomly (random) or according to certain criteria (purposive), students are allowed to interact with peers; 3) linking, connecting knowledge students have acquired new knowledge through problem-solving or discussion of specific topics; 4) questions, asking questions are important in learning because they will bring up original ideas so students can build knowledge within themselves; 5) exhibitions, students allowed to show learning outcomes; and 6) reflection, teachers and students are allowed to think critically about the learning experiences that have been carried out, and students are also allowed to think about the application of the knowledge they already have. This component is manifested in several syntaxes, namely: a) invitation, b) exploration, c) consolidation, d) exhibition, and e) evaluation. The syntax is as follows:

- ☞ The invitation stage (situation), activates students' memory or thoughts by conveying the objectives and benefits of learning, and tasks that students need to complete.
- ☞ In the grouping and exploration stage, students are given the opportunity to interact with colleagues, observe directly (field study) or indirectly (archival study), ask questions, and explore information.
- ☞ Consolidated learning stage, negotiating to achieve new knowledge by analyzing, linking existing knowledge with new knowledge through discussion of geography topics, and concluding in writing.
- ☞ In the exhibition stage, students are allowed to present their work on geography or build networks through presentations, displaying them on the wall magazine, or uploading them on the internet. In addition, students are also required to pledge to apply geography in life.
- ☞ The stage of reflection and formative evaluation is to get feedback for both teachers and students.

The procedure for developing a geography learning design with a constructivist approach includes five stages, namely:

- ☞ Identification Phase. There are three activities carried out by learning developers at this stage, namely 1) conducting theoretical studies through literature studies; 2) conducting empirical studies through classroom observations; 3) theoretical studies to obtain several information and products of learning design models and learning tools. planned.
- ☞ Design Stage. There are three activities carried out by researchers at the design stage, namely 1) identifying students' initial abilities; 2) formulating learning objectives, and 3) conducting feasibility studies.
- ☞ Development Stage. In this development stage, product categories are developed, namely: 1) a geography learning design model with a constructivist approach, abbreviated as the DPK model; and 2) learning tools. The product is implemented in the curriculum, especially in the subjects of specialization in geography.
- ☞ Trial Phase. This trial activity consists of three stages, namely 1) expert test; 2) group test; and 3) field test. The expert test was carried out by two geography education experts who are competent in the fields of 1) instructional design; and 2) content of the field of study.
- ☞ Dissemination Stage. The final design product package is distributed to related parties, especially geography teachers.

The advantages of constructivistic learning design in learning geography

The use of learning designs that encourage students to be more active and participative is an alternative when many students feel bored with the current learning designs. The

face-to-face learning system that has undergone a change from traditional (lectures) to a more modern one is the constructivist approach. With constructivism learning design, it means giving students to exploit what is in their minds with signs given by a teacher. Here are six.

- ☞ The situation is in the form of learning objectives and tasks that need to be completed by students. In this case, the teacher provides information about the competencies that will be achieved by students, and what tasks must be completed by students to achieve these competencies.
- ☞ Grouping is done randomly (random) or according to certain criteria (purposive), and students are allowed to interact with peers. So that each student can pour out the concepts he understands and dig up information from colleagues.
- ☞ Linking, and connecting the knowledge that students already have with new knowledge through problem-solving or discussion of specific topics. Students can draw a common thread between the knowledge they have and the new knowledge they gain through solving.
- ☞ Questions, asking questions is important in learning because it will bring up original ideas so that students can build knowledge within themselves,
- ☞ In the exhibition, students are allowed to show learning outcomes.
- ☞ In reflection, teachers, and students are allowed to think critically about the learning experiences that have been carried out, and students are also allowed to think about the application of the knowledge they already have.

Constructivism learning design components: The geography learning design model with a constructivist approach has several advantages. Some of these advantages include: 1) involving students in real life that are seen and experienced every day from concrete locations and spaces; 2) encouraging geographically divergent thinking; 3) flexible for field study and archival study; 4) developing collaborative problem-solving skills; 5) applying geographic attitudes and behavior; 6) building geographic insight; 7) encouraging students to enjoy learning geography through observing geosphere phenomena with a geographic perspective; 8) using a constructivist approach to learning models Problem-based geography shows that students become creatively active with greater geospatial understanding; and 9) constructivist learning model of fieldwork has a positive influence on student participation in field research to obtain geospatial information and geographic skills.

From the results of research on the application of a constructivist approach to problem-based geography learning models, it shows that students become creatively active with greater geospatial understanding and competency achievement, not retention of geographic knowledge for their own sake. Other findings show that students who follow the constructivist learning model of fieldwork in geography learning and the application of problem-based learning through investigations have a positive influence on student participation in field research to obtain geospatial information and geographic skills. This can improve students' spatial understanding, and analytical and interpretive skills, in observing geographical phenomena (Memito *et al.*, 2020) by the demands of geography as an observational science (Putra, 2010).

DISCUSSION

In this study, what was measured was only the cognitive domain because it was related to the ability of the students to master the subject matter. While the understanding of

learning outcomes according to Chandra *et al* (2019) is the output of information processing in the form of human skills consisting of: 1) Verbal information is the result of learning in the form of information expressed in verbal form (words or sentences) either in writing or orally; 2) Intellectual skills are individual skills in interacting with the environment by using symbols. This intellectual skill includes the ability to distinguish, concrete concepts, abstract concepts, rules, and laws; 3) Cognitive strategy is an individual's ability to exercise control in managing all of his activities. In the learning process, this cognitive strategy is the ability to control memory and ways of thinking so that effective activities occur; and 4) Attitude is the result of learning in the form of individual skills to choose various actions to be taken. In other words, attitude can be defined as a condition within the individual that will give direction to the tendency to act in the face of an object or stimulus.

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