PARADIGM OF ASSOCIATIVE THINKING THROUGH A SCIENTIFIC APPROACH IN THE 2013 CURRICULUM CONCEPT

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Abstract: *The concept of the scientific learning approach in the 2013 curriculum contains 5 principles, namely observing, asking, reasoning, associating, and communicating-creating. This study specifically wants to discuss the fourth principle, namely: association. Association in principle is to think associative. Associative thinking that is carried out by students is the key to the scientific approach. The scientific approach developed by the teacher in the classroom is not just a process of observing, questioning, reasoning, associating, and communicating, but it is more than the expectations we imagine. Associative thinking will spur activities to observe, ask questions (both to oneself and others), the reason more logically, and critically, and must communicate it to the teacher (experts), and can build creativity. This associative thinking activity will repeat itself to the point of saturation, which finding knowledge or a way out of a problem, both from questions raised by teachers and from fellow students, even from students themselves.*

Keywords: *Scientific Approach, Associative Thinking, And The 2013 Curriculum.*

Introduction

Associative thinking is a thought process that generates an idea in response to the emergence of another idea. The way this associative thinking process works is not determining by the starting point. So, this associative thinking can also categorize as free, independent, or liberal thinking. When a person thinks at one problem point, he may return to the first problem he found. However, he may make a thinking leap at 2 points or stages above it or even stay on one point for a long time.

The 2013 curriculum, which carries the concept of a scientific approach, requires that in participating in learning, a student must undergo a learning process with stages: observing, questioning, reasoning, associating, and communicating-creating. All these stages are carried out so that students are accustomed to thinking critically, logically, innovative, and creative, and can contribute to others. (Abidin, 2016).

The learning process with a scientific approach is designed so that students can take advantage of the thinking process more than just knowing something and not stopping at a point. It is a thought process that can be done by collaborating through solid teamwork, but can also be done individually. Therefore, learning that is built through a scientific approach is very appropriate to be used to see the work process of associative thinking.

The scientific approach has several characteristics, namely: 1) Student-centered, 2) Involves science process skills in constructing concepts, laws, or principles. 3) Involving cognitive processes that have the potential to stimulate intellectual development, especially students' high-level thinking skills. 4) Can develop student character (Hosnan, 2014: 36).

In addition, the scientific learning approach aims to make students as scientists (scientists) with character, according to their age and level of education. Therefore, the five things mentioned above must be a color in the learning process carried out.

The problem is, why is the scientific approach in the implementation of the 2013 Curriculum not implemented optimally, and how to apply this associative thinking paradigm in the scientific approach?

Literature Review

In the learning process with a scientific approach, the learning objectives to be achieved in addition to the Basic Competencies (BC) that have been set in each subject, are also to create productive, creative, innovative and character humans, through strengthening attitudes (know why), skills (know-how), and integrated knowledge (know what) (Abidin, 2016).

To achieve the above goals, is not something simple, as implemented in the learning process that has been cultivated for so long in schools and madrasas. However, it requires teachers to change the old learning culture, to scientific learning that is carried out by the 2013 Curriculum.

Scientific learning is a learning activity that activates students both physically and psychologically. Physical activity is not only done in the classroom but also outside the classroom. The teacher does not let the students stay in their place but moves deftly to form groups, preparing teaching materials to be studied. Students can also study in the library, in the school garden, and so on. The learning process that involves the psychic is learning that activates the work of the soul and brain to answer various problems given to students, as a basic material for starting learning.

The brain has the ability to control all aspects physically, consciously, or unconsciously. The function of the brain is related to the mind. The mind is also related to memory, the memory allows remembering various kinds of information, and data (Sitepu, 20180).

This paper will not discuss all the processes and stages contained in the scientific learning approach. Because, after analyzing the steps of observing, asking, reasoning, associating, and communicating-creating, it turns out that these five steps can be focused on the fourth stage, namely associating, or using associative thinking.

Thinking is the appearance of responses from stimuli given to someone, either in the form of questions or problems. Ahmadi argues that thinking is an intense psychological activity and occurs when a person finds a problem that must be resolved (2009). Thinking is the process of forming a relationship between stimuli to the brain and responses (Tohirin, 2006).

Thinking processes can be classified into two types; that is, associative thinking and directional thinking. Associative thinking process, a new idea that is obtained will stimulate the emergence of other ideas that can help in making decisions or solving problems. The course of the mind in the associative thought process is not predetermined or directed (Sarlito in Franscy, 2017).

Associative thinking is thinking in a way that associates something with something others. Associative thinking is a process of forming a relationship between stimuli and responses (Muhibbinsyah, 2011). This means that after students undergo the learning process, there will be an increase in the store of knowledge in their memory, and their ability to relate the material to the situation or stimulation being facing will increase. Associative thinking is also a type of creative thinking.

As expressed by Harfiani & Fanreza, creative thinking is thinking that can bring out persistence, full self-discipline in practicing. All of this is done with mental activities such as: 1) asking questions; 2) consider new information and unusual ideas with an open mind; 3) build linkages, especially between different things; 4) connecting things freely; 5) apply imagination to every situation to produce new and different things (2019).

Associative thinking is the basic human ability and competence to combine various ideas that can create new ideas (Mednick, 1962). Lubart, e.al., Argues that the ability to find

relationships in certain people involve elements that are usually not connected and facilitated based on prior knowledge (2013). The associative thinking process is largely determined by the ability to identify, define, and transfer back, the information stored in his mind (Casakin, 2011).

Thus, it can be concluded that associative thinking is the process of observing an object received from a response which then connects it with previous ideas or knowledge. Among the indicators of associative thinking skills are: 1) Linking knowledge to situations. 2) Connect knowledge with stimuli. 3) the ability to link one idea to another. 4) connecting old knowledge with new knowledge.

Discussion

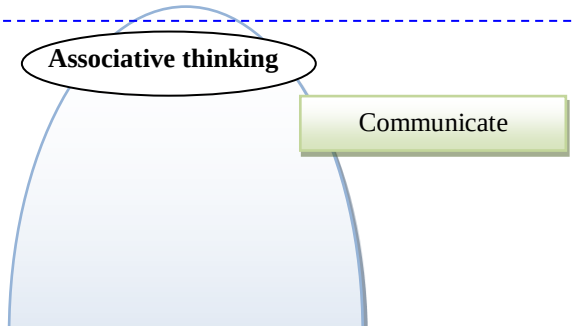
Based on the description above, it can be concluded that associative thinking is a basic human competence, which potential needs development. In the context of the 2013 curriculum, one approach that can be used to develop it is the scientific approach. For that, it needs to implement in the following steps.

1. The teacher must divide students into groups so that students are more active in the learning process
2. The teacher must prepare materials and learning resources that are by the topic to be studied by students so that the learning process can be carried out optimally. If learning takes place in the classroom, learning resources must be provided in the classroom, so that learning can be carried out effectively and efficiently.
3. Learning resources can be in the form of an android phone owned by each student, magazines, references, books, journals, encyclopedias, etc. As a note; Although books are available in the library, they must bring into the classroom according to the students' needs. Preparation for learning is carried out with the teachers and students so that students' physical activity in the learning process can be fulfilled.

   After these three things are available, the next step is to start learning with a scientific approach, which is carried out by; observing, ask questions, collect information, associate (to process information), and communicate-create.
4. The teacher gives several questions that must be answered by students through group discussions. Keep in mind, the questions given to students are questions that come from students, not from the teacher. This question arises after students are assigned to observe reading material related to the subject or from discussions conducted by students, and are related to daily cases.

   After the fourth stage, it continues with information-gathering activities. Information gathering takes place simultaneously with associating activities (processing information). Information processing activities are carried out through associative thinking. According to the results of the analysis carried out, the stages and processes of associative thinking are the same as the implementation of the scientific approach process.

   Associative thinking carried out with the scientific approach in the 2013 curriculum can be focused on the fourth stage, namely associating activities. This association activity can be done by tracing the steps of real scientific learning, namely observing, asking, reasoning/gathering information, associating, and communicating. These steps can find new knowledge. The following is a schema of associative thinking.



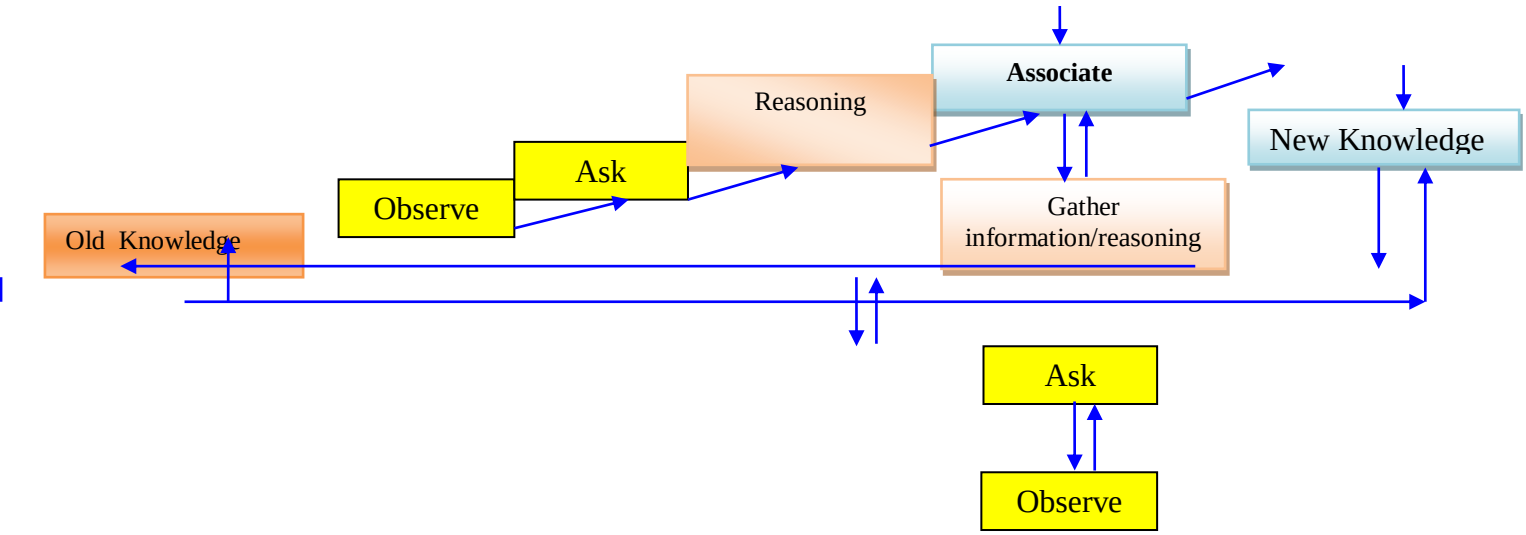


Figure 1: Associative Thinking Schemes

The schematic above illustrates that, if the scientific approach is carried out by following standard steps, learning activities can be carried out starting from the knowledge previously possessed by students (old knowledge). This old knowledge is developed by going through the stages of observing, questioning, gathering information, associating, and communicating. Or starting from observing activities (for learning a new topic), and so on. By taking these steps, students will arrive at the stage of communicating and being able to acquire new knowledge.

The discussion of this paper is specifically related to the activity or performance of associative thinking. In the schematic above, associative thinking is described and starts from the associate stage. When the associating stage is carried out by students, it is very likely that the thinking process does not stop at that point, and goes straight away to the communicating stage. However, at this stage of associating, people who are thinking will return to the activity of gathering as much information as possible, reasoning by asking and asking questions, both to themselves, with fellow groups, and to the teacher. After the questioning stage occurs, the process can go back to observing sources that can support solving the problems that arise from the first question.

Observing activities are carried out intensely, after which it will proceed to the next stage, and can return to the associating stage. If we pay attention to the scheme, the stages that are pass in associative thinking occur back and forth, and will not stop before answering the questions (problems) that are given. If the problem has been answered, then the communicating stage is carried out. At this stage of communicating, the students' memory savings increase or new knowledge increases.

Conclution

Associative thinking in a scientific approach occurs in the fourth step, namely associating activities. This can be seen by tracing the steps of scientific learning, namely observing, asking, reasoning/gathering information, associating, and communicating. These stages take place back and forth. If the question has not been answered one will not stop at one point, and can also go beyond two stages above it. This happens, because associative thinking can be classified into types

of free-thinking, and radical, to find answers to a problem or question, as well as to gain new knowledge.

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