Nyimas Wulandari: Creative Imagination in Islamic Education Neuroscience Perspective

Abstract: This article aims to develop creative imagination thinking in students with neuroscience-based learning based on Islamic learning. This research is a type of librarian research. In the golden period that occurs for children, all aspects can develop rapidly so that it requires stimulation that can optimize it, one of which is creative imagination. As it is known that this creative imagination has not been developed too much in education, even imagination is a distraction in children's learning. However, many historical scientists put forward creative imagination. This shows that creative imagination is not a learning disorder but a way to optimize thinking patterns and brain function to the fullest. Such as activities in learning that can provide a stimulus to children's imaginations such as playing music, singing prayers, making unique paintings, etc.

Keywords: Creative Imagination, Neuroscience, Islamic Religious Education

INTRODUCTION

Learning for each individual in order to provide understanding and knowledge and enable humans to think critically is an educational process. Education is also a conscious and systematic effort to form commendable behavior and inculcate good personality values for students (Nurlia Alfianti, 2021).

Not only that, education also plays an important role in developing the potential of students in self-control, mental strength, creativity and understanding which is very much needed in the community (Depdiknas, 2003).

An expert in the field of education Herman Harreel Horne explained that education is a process that is eternal and is carried out by humans to adapt in terms of physical and mental adjustments. There is also an opinion from Mahmud Yusuf who argues that education aims to provide stimulation to someone who aims to make that person have views or insights into education. Another expert also added that the most important function of education is to change attitudes and behavior of individuals or groups aimed at maturing individual mindsets through education and soft skills (Suci et al., 2019).

From several leading opinions, it can be concluded that the process of developing in terms of the thinking brain capacity of students often seems very
monotonous. This incident can usually be caused because the process of developing creative thinking in students is not well developed and is fairly limited. Cases like this often occur to students in the learning process. Where usually children often do things beyond the reasoning of adults so that things like this are considered abnormal and not in accordance with cognitive thinking patterns and children who behave in this way will be considered as children who have abnormalities in thinking as well as with academic education people will assume that children who have imaginative thinking patterns are classified as stupid (not smart) children.

The impact of this incident is very unfortunate if imagination in thinking is considered not important because imagination is very contrary to human thought patterns. (Egan et al., 2009) In other words, patterns of forming thinking imagination tend to be very suitable when applied to subjects such as art and literature because these two subjects more often use imagination in learning compared to other general subjects such as religious education and learning outside the arts because these subjects do not use imagination in thinking. (Kieran Egan & Judson Gillian, 2016)

Seeing from a philosophical point of view, that religious education has the right in human formation to change cognitive, emotional and psychological ways of thinking. Of these three aspects, each has its role in influencing the performance of the human brain in thinking. (Suyadi, 2020) Another idea came from Judson in his book which states that there are two important points regarding the potential for human thinking in imagination, namely; first, general subjects and certain subjects also require imagination in the learning process at school. Second, the cognitive tool in learning is imagination. Because imagination can help students understand the material conveyed by the teacher so that, in other words, imagination really helps students remember the lessons they have learned at school. (Gillian Judson, 2016).

Imagination creative thinking is a visual ability that can produce new works that have never before been imagined in the human mind. Creative thinking imagination is of course very important for human life. (Faisal Afif, 2013) The thing that is really needed by a child is to have creative imagination thinking which is useful for developing their abilities in creativity in all subjects. Thus, the pattern of thinking is imagination. (Husni & Zainuddin, 2018).

Psychologist Tony Buzan in his book entitled Mid Map explains that in the human brain there are two kinds of
hemispheres, namely the right hemisphere and the present hemisphere, each of which has its own task. In the right hemisphere of the brain (right himishare brain) humans tend to think imaginatively and creatively, compared to the left hemisphere of the brain (left himishare brain) which tends to work and think rationally such as doing reading, writing and arithmetic activities. If children at school are more often dominant in counting and writing, the left hemisphere of the brain plays a more important role than the right hemisphere. And if a child often does things beyond normal thinking, it means that the child has high imagination and the ability to the right hemisphere of the brain is more dominant than left brain hemisphere. (Buzan, 2003).

That is why, in developing an interactive learning process and attracting the talents of students, creative imagination is needed in every subject, not just certain subjects. In creative imagination this also applies to Islamic religious education subjects because these subjects hold control in guiding, maintaining, and controlling all possibilities that the human brain needs both emotionally, intellectually and mentally. (Taufiq Pasiak, 2006) Thus humans are required to be able to face the problems that occur in their lives.

From the description above it can be concluded that all subjects require imagination in the learning process which aims to make it easier for students to understand and remember the material that students have obtained. And with this the author agrees that creative thinking imagination is involved in all subjects, not just certain subjects. Because with creative imagination educators assess and know the imaginary potential possessed by each student. So that the notion of creative imagination which was previously considered unnecessary for all subjects can be refuted and proven through this writing.

**METHOD**

This research used the qualitative method for exploring the data and results. From this writing, the writer wants to learn more about the relationship between creative imagination mindset and Islamic religious education.

Thus, in this writing, the writer uses the library method with a qualitative approach. (Danandjaja, 2014) With this research, the writer hopes that educators are able to create creativity by optimizing the development of creative thinking brains in students so that they are able to provide a clear and directed picture and so that it is useful and can produce works that are not only literary works but works that involve the working system of the brain in Islamic religious education subjects.
RESULT AND DISCUSSION

In every lesson, of course, children always need imagination in absorbing the learning that has been conveyed by educators. Creative imagination is the ability to imagine or create images that appear in his mind. In this case the image of a child using imagination in capturing learning does not mean that the child is a child who has a disorder in his thinking.

“Imagination is the beginning of creation. You imagine what you desire, you will what you imagine and at last you create what you will” (McKernan, 2007). A Swiss physicist named Albert Einstein argues that imagination is a very extraordinary process that occurs in humans. According to Albert, imagination is the most important part compared to science. This is because the knowledge possessed by each human being has a time limit and this limitation occurs as long as the human being is still alive. Meanwhile, the imagination possessed by every human being will exist before humans realize that they are capable of imagining because imagination can occur long before humans can think. An incident like this happened to a scientist named Martin Copper and Eric Tigerstendt, at that time they imagined that one day everyone would have a communication tool in the form of a mobile phone to facilitate communication between individuals. And this can happen in today's masses even though before this happened people never imagined it before. This is because imagination can do far ahead compared to knowledge. This is similar to what Albert did, he imagined if he could travel through time so that he could equip himself with more innovation, in order to unravel the mysteries that are happening in this world (Amir Faisal, 2015). But Albert also realized that the scientific view he got was caused by his frequent imagination. Therefore, imagination also has an important role in order to contribute to the development of knowledge in every human being such as numbers, and this similarity can occur due to the relative shape of imagination in which the two things will combine left and right cortex synthesis (Buzan, 2003).

Imagination has an important role in providing innovation for all humans in the world today to the future. Vygotsky explained that his ability to create works of art, science and technology is a form of imagination. Where imagination is the basis of all activities carried out by humans from aspects of life and culture. In his theory Vygotsky explained that the process of mental development that occurs in humans such as; memory, attention and reasoning all have to do with learning. So, the role of imagination in each subject is needed in order to see children's...
understanding from the cognitive domain (Rilwan Maqashshing Faisal, 2019). Judson also explained that humans are very imaginative creatures because they can feel and think about things that might not yet happen (Gillian Judson, 2016). This was felt by Alberth when he was still in education where at that time Alberth was expelled by the school because the school considered Alberth to be a stupid child because Alberth's grades were far from the minimum grades and Alberth at that time also often played truant in every class. subjects he didn't like. But in fact, all of that is not a benchmark of a success possessed by humans (Taufiq Pasiak, 2006). Another example for example; a child who is still stammering (not fluent) in reading the Koran does not mean that the child is stupid and cannot read the Koran.

Many people believe that the reasoning that occurs in each individual has something to do with science education but has nothing to do with imagination. The fact is that this happens to a baby when he is less than one year old where he will see and explore his surroundings from these activities, he will see one point of an object that can attract attention, so the baby will look at it continuously until the object disappears and doesn't stop. look again and it will do nothing to the baby. But when after a few years a child is able to take steps to illustrate something that is not visible by creating an image to represent in an inappropriate situation. (Yusmaliana & Suyadi, 2019).

In the world of education, creative imagination plays an important role, not just dreaming and imagining it. As stated by Alan R. White that imagination or imagining is an activity carried out by someone who has the ability to think intelligently. Alan also added that imagination has something to do with exploration and originality in thinking about the possibilities of what is actually happening (Kieran Egan & Judson Gillian, 2016). The activity referred to in this creative imagination depends on past experiences. Because the more experiences that occur in the past, the more material one can do in imagination. Like wise with the world of education, creative imagination is not just wishful thinking. However, creative imagination is more about a person's ability to process and discover possibilities that can occur so that this can provide stimulus or stimulation to the brain. In imagining it depends on how much experience has occurred because this will become material for imagination. Things like this happen to people who have a lot of experience because they find objects that interest them so that the brain will respond and process them so that creative imagination emerges.
From the various explanations above, it can be concluded that it is necessary to stimulate the brain in order to create imagination. In applying it to the world of education such matters also need to be done to build imagination in children and educators are also involved in providing stimulation so that children can imagine. In other words, the more stimulation that educators do and the more children see, hear and experience it, the stimulation that has been done before makes it easier to encourage children to have creative imaginations.

**Neuroscience in Islamic education.**

Neuroscience is the study of the nervous system in the human brain, a scientist trying to study and develop related to the relationship between the brain and the world of education. Because remembering that every brain has its own uniqueness related to the educational process (Egan et al., 2009). In this case it is explained that the abilities possessed by the human brain with the abilities possessed by computers are very different. Things like this are unfortunate because most people always think that the brain has the same role as a computer, which is only a tool for storing memories. But in fact, the brain itself is made up of various mixtures. These mixtures can be in the form of memories, intentions, and emotions that can shape the mentality of each person. For this reason, in the learning process, the brain is needed in order to capture information which will then be processed by the brain. In neuroscience, nerve or neuro cells have extraordinary capabilities when compared to the capabilities of a computer which only has a limited storage capacity. An expert Saron Begley expressed his opinion that neurons in the brain are capable of regenerating new neurons so that it is commonly known as neurogenesis. These nerve cells can also adapt according to the experiences that make a person have changes that occur in the environment. This uniqueness of the brain will continue to be researched over time with the aim that neuroscience can be accepted in the world of education (Puspita et al., 1970). Arguing against the foundations of neuroscience in the disciplines of health and Islamic education, theoretically, historically and academically it explains that theologically, the fontanel (fontanel) in the Qur'an is defined as the center of control of various bodily functions. As contained in surah Al-Alaq verses 15-16 which means "Absolutely not! Indeed, if he does not stop (doing so) We will pull the top of his head, (into hell). (namely) the forelocks of those who are liars and disobedient."

From this verse the forelock is interpreted as An-Naashiyah where this
member of the body will be responsible for the characteristics possessed by humans. Furthermore, a research expert on Islamic philosophy, Fiqh and Usul Fiqh explained that the maintenance of reason is the foundation of neuroscience. The latter is theoretically and academically, namely neuroscience which is related to the concepts of 'Aql and Qolb. According to Daming, the concept of 'Aql in the Qur'an is explained as a capacity related to knowledge to understand things that are right or wrong. (Nurjanah, 2018). Thus, in the world of education, one of which is Islamic education, the development of neuroscience-based creative imagination cannot be separated from the science of terms. As explained by David A Sousa, an international consultant in neuroscience, explains in his book (Suyadi, 2020). Stated that an educator is only a worker who is only able to change the brain every day even though he is not an expert in the science of terms (Suyadi, 2014). Long before scientists researched the brain, Roger Sperry and Robert Ornstein had done this. They found that the waves that occur in the brain have their respective functions. Which on the right side of the brain is known to be more dominant on things that are imagination, daydreaming, color and size. While the brain on the left side will be more dominant in logic, numbers, linear and lists of things that are calculating.

From a neuroscience perspective, the development of each brain also requires attention. Because this is based on the right brain and left brain, both of which are always trying hard to balance themselves. For example, at the learning stage, the left brain is more dominant than the right brain where the left brain will immediately be able to process what is explained by the teacher while the right brain tends to balance. Things like this cannot be blamed because each brain has its own role and has tried to always balance. Thus, the need for steps to stimulate the right brain that can be done is to provide stimulation through learning so as to create fun learning. Buzan believes that so far schools have taught the wrong way. Because in school students are given a lot of knowledge which they are required to receive these knowledges without being taught how to maintain all the knowledge that has been obtained so far. The way that has been done so far in school, namely by memorizing this is an erroneous act in understanding it. Because memorizing, as is often done at school, is a way to instill an impression in the brain, but this is repetitive and forced. From a neuroscience point of view, the balance between each of the hemispheres of the brain really needs to be considered because basically the left
brain and right brain always work to balance. The process of the brain in adapting is always carried out continuously until creativity arises that is in accordance with the experience that has been received by the brain. Although in reality there is no brain whose job is to think creatively. But by doing a stimulus to the brain, the parts of the brain will be interconnected and more active so that it will produce certain creativity.

As happened in the learning of Islamic religious education in the use of neuroscience-based creative imagination, this is an attempt to maximize the intellectual potential that exists in each individual with the concept of Islam. As we all know Allah SWT created humans as the most perfect creatures with other creatures. Which in the word means that God created humans by giving humans a sense to think Harun Nasution revealed that reason has an important position for human life (Yanti, 2017). In this way, reason is optimally used in accordance with Islamic principles so that Muslims are able to interpret Islam and not narrowly. As contained in the word of Allah surah Yunus verse 100: It means: … And no one will believe except by Allah's permission; and Allah inflicts wrath on those who do not use their minds.

In the verse above it is explained that whoever does not use his mind properly, Allah SWT will be angry with those who do not use their mind. By looking at the interpretation of the verse above that reason must be used optimally in learning about religion it should lead to maximizing the potential that already exists, namely the brain in obtaining knowledge about Islam. (Taufiq Pasiak, 2006). That way the potential possessed by humans as a deposit and a gift from Allah SWT is not only limited to certain abilities, but it can be in the form of other intelligences such as IQ, EQ and SQ as well as multiple intelligences (Suyadi, 2019).

Creative Imagination in Islamic Religious Learning

Ribot in (Vygotsky, 1991) argues that every time a meeting occurs, be it big or small, it can be realized in reality as a union of imagination. Many scientists who try to make discoveries actually come from creative imagination. From the creative imagination then lowered into rationalism. Therefore, the imagination that initially people thought was irrational turned out to have in fact taken the stages of imagination, rationalization and realization. Cases like this are rarely found by logic which currently only focuses on the results of previous findings and data. As stated by Egan that in the educational process there is an imagination that
functions as the heart of real educational experiences that will not be separated (Egan et al., 2009). There is also a process of Islamic education that has occurred so far, where often Islamic education has not been directed into better potential so that the process of imagination can be directed to the achievement of learning competencies. As with the science of hadith and cultural history, in these two subjects there is material that must be conveyed, but at this time, the material presented cannot be conveyed properly (Yumnah, 2019). When Islamic education continues to be the center of public attention and is considered as one of the subjects that is partly responsible for the influence and development of the times, where this has an impact on the character, values and mentality of a nation. Although this is not considered entirely true, Islamic education must also prepare itself. This is what happened to Muslims when they realized from the penetration of the 18th century that people were trying to get up and fight from adversity (Fazlurrahman, 2018).

Imagination in education also has a relationship and mutually supports creativity (Nursyaidah, 2019). The word creative is an ability that exists within humans and then emerges and experiences renewal due to stimulation from someone. As with the stimulation that is often given to children, namely in terms of writing where they will always be given a stimulus in the form of rhythm/music. Because the rhythm that is used as a brain stimulant will create an atmosphere that can suggest, and make it a bridge in imagining, such as making pictures and sequencing events that have happened based on what is written through music. In this case the brain's ability to respond to imagination is expressed again through writing. In other words, art is also part of the stimulus that creates imagination (Yusmaliana & Suyadi, 2019).

Furthermore, what can stimulate the imagination and work of the nervous system is through games. According to Audrey Curtis, creative games are able to develop children's integration (Ade, 2006). Other experts also argue that the dominant characteristic occurs in creative thinking where creative thinking is able to describe what is being played. Young children are very imaginative and always gifted in playing with objects, ideas or personalities. Because within them there are no boundaries and no constraints. The process of generating imagination in children can be described through the games that are currently being played. So it's no wonder that the world of children is often categorized as a fantasy world which is usually very difficult for adults to reason with.
CONCLUSION

The creative imagination of neuroscience-based Islamic education is a step in the Islamic religious learning process that must always be developed for students. Creative imagination depends on several very diverse stages where when children creative imagination will always develop in their own way. This is one of the characteristics of the stages of child development which depends on the stimulation provided as well as the experiences they experience.

The importance of imagination in religious education in order to shape human beings and balance cognitive, affective, and psychomotor aspects so as to optimize human potential. From various kinds of stimuli that become stimuli for the formation of creative imagination in religious learning, this can be done by producing written works, singing and playing musical instruments with religious rhythms. So that in this way it can generate values that will be put aside in the learning and from this step it can help students store memories for quite a long time.

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