

# Creative Imagination Base on Neuroscience: A Development and Validation of Teacher's Module in Covid-19 Affected Schools

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**Abstract** Optimizing the potential of the brain in learning so far has not touched the intuitive brain dimensions that regulate the way of thinking as creative imagination. In the Islamic education context, creative imagination is precisely being mistaken as a delusion that destroys the potential of the rational brain. This research aims to develop creative imagination based on neuroscience in the Islamic learning course in elementary schools. This research has used Dick and Carey model. Product design was developed by adapting the concept of Vygotsky's learning tools into a new model of Creative Imagination based on Neuroscience (CIBN). Design analysis of the development models was carried out in two phases, namely requirement analysis and feasibility analysis. The needs analysis was done by adjusting the use of cognitive tools and presenting to the teacher, while the feasibility analysis was done through the validation of material and media experts. Specifically, the validation data were analyzed descriptively qualitatively with a mean value of "Very Good" and media experts obtained a mean value of "Good". In conclusion, the learning module with the CIBN model is feasible according to the material experts and media experts to be continued in the next stage and serves as a source of input for planning and implementing further learning programs. This research also has implications as a new offer that can contribute to learning in a new normal era due to the Covid-19

pandemic.

**Keywords** Creative Imagination, Neuroscience, Development, Al-Islam Teacher's Module, Covid-19 Affected Schools

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## 1. Introduction

Currently, the emergence of the Coronavirus which is known to have started for the first time in Wuhan, China [1] has plagued and became a pandemic for the international community and caused thousands of human cases to die, including Indonesia. In terms of education, the Indonesian government starting from March 2020 has intensified preventive activities through policies for activities from home such as studying, working, and worshipping [2]. Even, one of the biggest Islamic association in Indonesia, for example, Muhammadiyah has gathered Disaster Fiqh which later turned into a regularizing establishment in the Covid-19 relief [3]. Although the new normal conditions have been enforced, vigilance in various activities including in the world of education still receives attention. Cahapay revealed that the insight and education system in periods like this, which differ greatly from the usual conditions, must be continuously prepared [4]. The school,

which was originally a place to interact and learn together to achieve educational goals, has unexpectedly been forced to temporarily close due to the unfinished coronavirus. Therefore, it is necessary to apply various steps of learning strategies that are different from the usual both by students as learners and subject teachers and parents as companions in learning. Aji revealed that teachers should facilitate online learning as effectively as possible. On the other hand, it does not burden students with tasks alone but still prioritizes *ing ngarso sung tulada, ing madya mangun karsa, tut wuri handayani* [5].

The learning model including Islamic education must develop to provide solutions to the current pandemic conditions as well as to face other problems of Islamic education, such as learning that still seems fragmented [6], [7], and is silent and less responsive. There have been various developments in Islamic religious learning models such as by [8] with a professional education model that contains the substance of daily experiences in life, [9] with a tolerance education model, [10] with a multicultural education model, [11] with the ASSURE model, and other learning models. Looking at these learning concepts or models, of course, is closely related to the creativity of a teacher in managing the learning system and process, especially with the current conditions that are being affected by Covid-19.

Al-Islam education itself is a special feature for Muhammadiyah schools in Indonesia [12]. Islamic education sourced from the Middle East is experiencing rapid progress in Indonesia because it was developed with a modern Western methodology [13], so that Muhammadiyah schools are known as progressive millennial Islamic education [14]. One of the Muhammadiyah's educational assets is the ownership of organizational assets in Muhammadiyah Neuroscience Agency that the implementation in Islamic education is the development of creative imagination.

However, until now Muhammadiyah's education is still far from the development of creative imagination. This issue is because the learning of Al-Islam has some religious ritual dimensions that are sacred [15] so it is not easy to accept creativity in it. In fact, the creativity that arises in the muamalah or historical aspects of civilization can produce the beauty of diversity in one faith.

Furthermore, in this era, it is known that creativity is part of 21st-century skills. This fact has inevitably brought each educational institution to be able to produce students who are able to think, act, and handle situations or problems intelligently since in primary education [16], including Islamic educational institutions. It also needs a learning model that is able to develop creative imagination to direct the student to achieve various skills. Al-Islam requires thinking skills that are not only limited to the books and available materials in the school only, but also think about the facts and link them with each other so they can form estimates, considerations, interpretations, and sharp

analysis for their application in social life. Hence, including Islamic instruction, needs a learning model that can create a creative imagination to guide the understudy to accomplish different abilities. Al-Islam requires thinking skills that are not only limited to the books and available materials in the school only, but also think about the facts and link them with each other so they can form estimates, considerations, interpretations, and sharp analysis for their application in social life [17].

Allah SWT has obliged Muslim to use his mind for the benefit of the people through various verses. In Arabic word, it is 'tafakkur'. As in Ibn Sina's view, he wanted the role of 'aql' should be developed optimally, especially in the world of Islamic education [18]. Various verses that contain tafakkur are included in QS. Al-Baqarah verse 219; QS. Al-Imran verse 191; QS. Al-An'am verse 50; QS. Al-A'raf verses 176 & 184; QS. Jonah verse 24; QS. Al-Ra'd verse 3; QS. An-Nahl verses 11.44 & 69; QS. Ar-Rum verses 8 & 21; QS. Saba 'verse 46; QS. Az-Zumar verse 42; QS. Al-Jatsiyah verse 13; QS. Al-Hasyr verse 21 and QS. Al-Muddatstsir verse 18. Responding to these verses, Suyadi sorted the foundation of neuroscience in the field of education as an interpretation of 'Aql and Qolb concepts [19], [20]. Therefore, in Islamic religious learning, researchers have developed a learning model, known as the Creative Imagination based on Neuroscience (CIBN) model [21].

According to learning theory, Vygotsky strongly emphasized the concept of imagination where through imagination, people can imagine what they have not seen, conceptualize something from the narratives of others and describe what he himself has never experienced directly [22]. Through imagination, it is not limited to the narrow circle and narrow limits of one's own experience, but can explore far beyond these limits, assimilated, with the help of other people's historical or social experiences. This is sometimes very difficult to achieve in the learning process at the initial level of primary school where especially in Islamic religious studies there are many abstract materials that are difficult for children to understand at their age. Whereas the development of students in the early stages of this school can have a far-reaching impact when they grow up even on the most urgent behaviors and attitudes such as anti-corruption behavior [15] [23]. Dualism in education can lead to failure in producing complete Muslims. For this reason, a type of education is needed that guides and trains one's mind, body and soul based on Islamic values and revelations (Al-Quran and Al-Sunnah) [24].

Imagination is very important for transferring the teaching materials to elementary school students. For example, when a teacher has to convey or read news or stories or Islamic history that has never been witnessed directly, where the event only happens to other people, imagination will help to get that experience. However, it must still be underlined that the delivery of material that is contained in the form of stories and stories should also

have the potential to optimize children's brain function, not stories that can risk stunting or even damaging children's brains [25]. Or in other words, Suyadi calls it Islamic education as a new scientific variety, namely Islamic Education Neuroscience [20]. Therefore, in this context, the neuroscience-based creative imagination model in Islamic religious learning is based on two important aspects, namely creative imagination and educational neuroscience.

Egan called imagination in the educational process is the heart of the true educational experience and is not separate from the "basics" of rational inquiry, and a hard pragmatic center of effective human thought [26]. When students can connect to the subject matter through their emotions, their imagination process begins to work [27] as expressed by [28] that no matter how great the teacher explains the material, the students will accept the truth of the material if their emotions have said that it is true. Therefore, we need some learning tools that can stimulate emotions. Taufik Pasiak calls it a visualization process, which visualizes certain situations, such as real events. This activity is what will then bring up the process of imagination in it [29].

The learning activities included in the CIBN model are activities that can expand experiences and stimuli involving creative imagination. The more a child sees, hears, and experiences, the more he will know and assimilate, the more elements of reality he will have in his experience, the more productive his imagination. It is due to a network of circuits in the child's intuitive brain as an implication of the synergy between the arts of science in learning [30]. Hence, various approaches such as games, dance, drama, film, music, and visual arts can be used to transform imaginative ideas into creative works. For example, through play, students control actions and movements (aesthetic reactions) which can increase the experience and intensity of their actions [31]. As such, they create their own interpretations of what they have experienced, in a similar way when an author creates his work and a reader creates his interpretation of the work. Flemming and some of his colleagues have revealed that based on the results of longitudinal studies that are connected, it showed a strong positive relationship between art participation on academic motivation, involvement, and student achievement [32]. If seen from the various approaches that can be done to arouse the imagination of the students above, it cannot be denied that emotions have an important role because imagination involves the central expression of emotional reactions [33].

Based on interviews before the study, the researchers found that creativity and imagination in the classroom have not been greatly developed, especially through the use of modules. Listiyani expected that there is a development of CIBN models in learning modules containing the steps of Islamic religious learning which is more enjoyable and touches on the students' brain

development [34]. Likewise, [35] stated that in Islamic religious learning, a method that is able to stimulate and provide the widest possible space for students to develop their abilities is the neuroscience method. Although the development of the AI-Islam learning module with this CIBN model was developed limited to the learning process at the first grade of elementary school, these findings will serve as an input source for the planning and implementation of further learning programs. Similarly, the results of this research can be used in the learning momentum that is currently taking place, which uses more online learning systems due to the Covid-19 pandemic. For example, teachers in the Caribbean began to embrace the construction of learning practices based on community, creativity, and connectivity [36] where the role of imagination will certainly enter the realm of creativity. Therefore, the validation of learning modules for teachers with CIBN models for grade I students is important to be carried out as a measure of the effectiveness of these models.

## 2. Methodology

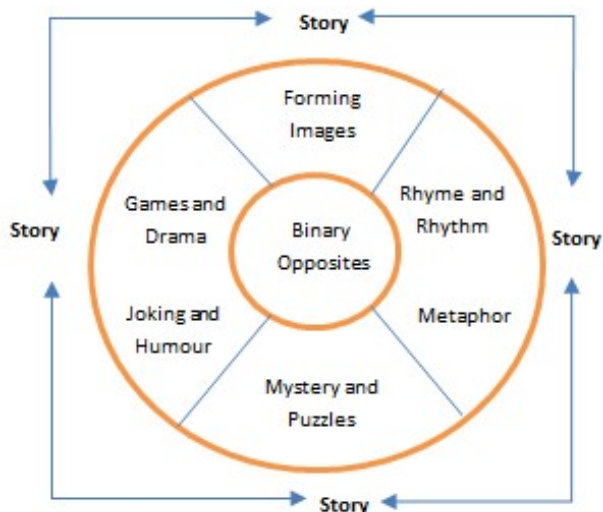
This study used the Research and Development (RnD) research design model of Dick and Carey [37]. The research setting was carried out at the Mantaran Muhammadiyah Elementary School in Yogyakarta, which involved one principal, two AI-Islam teachers, and first-grade elementary school students. The study was conducted from October 2019 to March 2020. Currently, the school as the research setting is also affected by Covid-19. Data were collected through observation, interviews, and product feasibility methods in the form of learning modules for teachers. The instruments used in data collection include observation sheets, interview sheets, and questionnaire sheets. Observation and interview sheets are used to record information from the field in the initial research. The questionnaire was used to measure the feasibility of the learning module products for teachers with the developed CIBN model. Data collected in the preliminary research, assessment of material experts, and media experts, were then analyzed and described. The data were obtained in the form of qualitative and quantitative. Thus, there were two data analysis techniques used: 1) Analysis of initial condition data and product development. The initial condition data in the form of problems and the potential for learning development in the school were analyzed and developed as a learning module, 2) Analysis of product feasibility data. Product feasibility data in the form of a learning module for teachers developed in the opinion of material experts and media experts (learning module) and described quantitatively. The validation of the material experts was conducted to assess the appropriateness of the content, the suitability of the use of cognitive tools, and the presentation of the module for the

teacher. The validation of the Media experts (learning modules) was carried out to assess the consistency, format, organization, and attractiveness of the module.

Validation activities were conducted by two expert lecturers on AI Islam and Creative Imagination based on Neuroscience content and two media experts on the learning module. The activity was carried out to determine the feasibility of a learning module for teachers that were developed theoretically. The instrument used was a validation sheet. The data collection method in this study was the method of collecting validation results, then the data obtained were analyzed descriptively qualitatively.

### 3. Findings and Discussions

Based on the initial data exposure obtained through observation and interviews with one school principal and two AI-Islam teachers at SD Muhammadiyah Yogyakarta, then a Focus Group Discussion (FGD) was conducted with a research team and neuroscience experts. The result was an agreement to establish a learning module for teachers with a CIBN model. The module follows the planning framework and outline adapted from the development of imagination in education by The Centre for Imagination in Research, Culture & Education (CIRCE) [38] as shown in Figure 1 below.



**Figure 1.** Diagram of cognitive tools developed by The Center for Imagination in Research, Culture & Education (CIRCE).

The development formula adopted by researchers as a framework of the CIBN model is the concept of cognitive tools in the form of oral language or Mythic Understanding [39][40]. The following are some steps to be used in the CIBN model for learning AI-Islam, namely:

1. Finding the significance of the AI-Islam lesson to be conveyed, by looking for an emotionally interesting side about the topic to be presented, bringing up a unique side that can arouse wonder and curiosity, and raises questions why it is important to know.

2. Forming lessons or material/topics of AI-Islam that will be delivered, by choosing topics or news that are interesting to convey like a reporter who wants the news to be contained and consumed by a general audience who presents news with emotional involvement and imagination. To consider and do these two things in the content of the course to be communicated, you can follow the steps below:

- 1) Find stories about topics to be conveyed.
  - 2) Find the binary opposition or the opposite of the word to be passed. This concept was expressed by Kieran Egan as a good cognitive tool in stimulating curiosity and emotion in introducing a topic or material.
  - 3) Find the best picture that can reveal the material or topic to be conveyed
  - 4) Use additional cognitive tools such as puzzles, riddles, jokes or humor, rhymes, games, drama
3. Using supporting resources that can be used in telling the story.
  4. Draw conclusions about how to end the story, how to properly resolve the conflicts in the story, and what aspects of the topics presented attract students.
  5. Conduct an assessment, including whether you understand the content related to the topic.

Based on the results of interviews conducted by researchers with two AI-Islam teachers, it can be seen that students already know most of the material in the book because it has been obtained at a kindergarten level.

*"Most children already know certain material such as short letters in the Koran and Asmaul Husna. It's just that when they study about it again, they will find it difficult or forget because it is rarely repeated and previously only limited to memorization. Not yet leading to the actual application and reading based on Arabic letters"* [41]

In addition, the teacher also said that the first grade of elementary school students can use creative imagination models in the delivery of their material concepts if they are delivered through platforms and cognitive tools that are in line with student development, such as games, songs, music, drama, and so on. In the transition from kindergarten to elementary school, students are still very active and like things that are fun and exciting. It is just that at the time of its application, sometimes the teacher has difficulty controlling and conditioning the class because there are no written concepts and specific learning sequences that are intentionally made to fulfill them as the teacher answers when interviewed below.

*"Yes, in my opinion, if there is a module for us (the teachers) that uses a neuroscience-based creative imagination model that contains steps of direct learning so that we can apply it in the classroom, it is possible to make it easier for students to be directed according to the expected learning goals"* [34]

Therefore, the development of learning modules for teachers with CIBN models that contain appropriate learning steps for the development of learners is one of the alternatives in delivering Al-Islam material to the first grade of Elementary Schools. Especially in the new normal era due to the Covid-19 pandemic, learning with a model of creative imagination based on neuroscience provides freedom for students to develop their own reasoning and imagination according to the signs instructed by the subject teacher.

All efforts made by the teacher in stimulating the activity of the potential brains of each student during the Covid-19 pandemic are a new challenge because the monitoring of learning activities that were originally carried out entirely by teachers at school, now transferred to parents at home. Inevitably, the provisions of social distancing must be strictly implemented in an effort to control the spread of the virus [42]. Therefore, the use of an appropriate learning model (in this case, for example a creative imagination based on neuroscience model) to maximize the management of the distance learning system is expected to provide support for achieving learning goals.

From the interviews conducted by researchers to the two Al-Islam teachers, the development of learning tools such as storytelling, playing, humor, music, drama, and so on, then found that the emotional role is very important. The experiences of students from these various activities will then produce a creative imagination. Vygotsky (2018) in [43] revealed that creative imagination is the result of the capacity of fantasizing situations. Someone will create according to their capacity to imagine and fantasize through various factors, one of which is through the accumulation of experiences they have gained. From the perspective of neuroscience, the various stimuli carried out through the above activities are the most complex stimuli that can activate more parts of the brain, and therefore can provide opportunities to create more creative learning concepts in Islamic education [44]. As Suyadi (Suyadi) revealed, Islamic philosophy education is an effort to form a balanced human being between cognition, emotion, and mental movement, and to optimize human potential psychologically [45] or in other words it is called '*insan kamil*' [46].

Following various studies have proven that various stimuli can stimulate students' creative imagination, including the model of activities that use the Malay traditional children's songs to enhance Creative Imagination among preschoolers [47], the Creativity Education model that always strives to broaden his life experiences during the educational process either through direct involvement of students as themselves in gaining experience or through the involvement of student representatives in the experiences of others [48], the concepts of play and imagination brought to the classroom to encourage creativity [49], as well as drawing activities as a way for children to explore and express their imagination and create new understanding when they

understand their inner and outer world [50].

The module development stage consists of several parts of development such as instructions for using the module, learning indicators, learning steps, materials, and learning evaluation. The product developed for the first grade refers to the 2013 curriculum, using indicators with operational verbs so that their performance can be measured. The material for the second semester of Al-Islam Elementary School chosen also refers to the learning book issued by the Muhammadiyah Central Leadership by taking two discussion chapters, namely a chapter on memorizing short letters and hijaiyah letters with a reading mark and a chapter on asmaul husna. Each product design in the two chapters is carried out in the preparation of the initial draft of the CIBN module, namely: 1) Mapping of learning objectives made with reference to indicators that can be achieved through the development of CIBN learning tools such as storytelling, singing, playing puzzles, and etc. The CIBN learning tools enable teachers to pay attention to the student's imagination who not only see the attractive side of teaching practice but also think of ways to stimulate and develop learners' imaginations according to each student's brain development, 2) Selection and Collection Material, 3) the determination and compilation of learning media, which in this case the role of diverse learning media is a necessity where students today are millennials who are very easily bored and are always moving fast [51] and 4) making learning evaluation sheets. Following the cover display and the steps of the developed CIBN module are shown in figures 2 and 3 below.

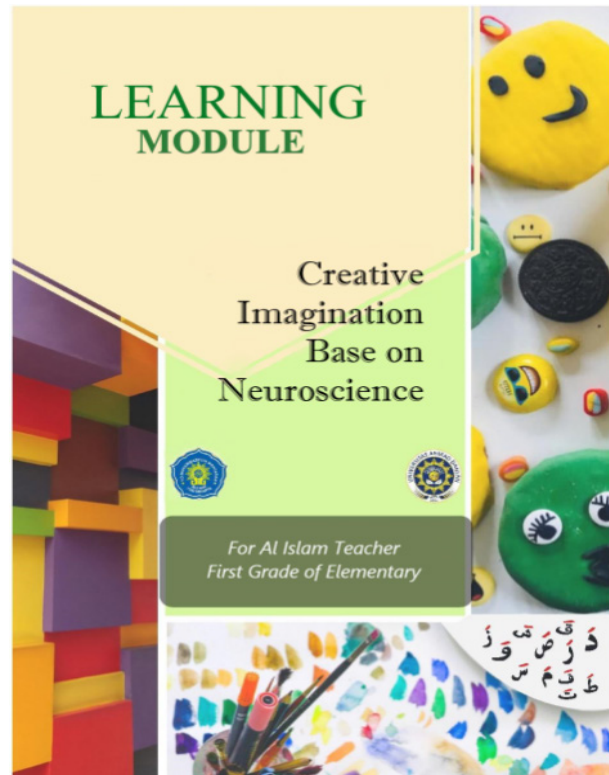


Figure 2. Module Cover

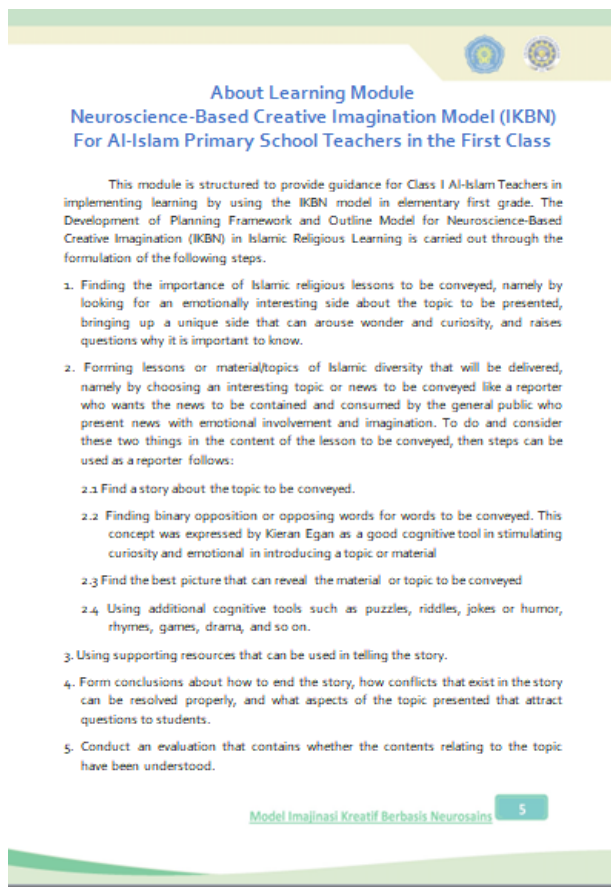


Figure 3. About Module

Design 1 in the first picture above uses several images of emoticons, puzzles, coloring tools, and hijaiyah letters as a representation of some cognitive tools used in the development of Al Islam learning modules. In the cover, there are also two institutional logos which express the researchers' gratitude to the institution so that the research can be conducted. In the next picture displays a planning framework on CIBN models as a guide for developing Al-Islamic learning modules in the next material.

In the design of the next module development, several learning activities were included which involved varied learning media, Al-Islam material according to core competencies, basic competencies, as well as learning indicators along with creative imagination activities that could be carried out. For example, in the first meeting of the chapter on hijaiyah letters with a reading mark, 5 pictures are displayed that can be used by the teacher as a medium to find out students' emotions during learning and train students to be able to devote all that is thought by their brain. Pasiak called this brainstorming activity (Bulk Up to Exhausted Materials) [52]. Whether there is a connection with the problem at hand or not. All that is poured out, one day will have a relationship with what is faced later. Furthermore, examples of game media contained in the module and can be used as learning tools are puzzles. Teachers of Al-Islam can develop media creation like puzzle independently or by using existing designs in [53]

as one of the developments of the CIBN model. The initial product draft that has been developed was then consulted with several experts for formative evaluation. This activity was done to collect data related to the strengths and weaknesses of the learning modules developed. Some revisions suggested by material experts and media experts (learning modules) can be seen in Table 1 below.

Table 1. Recommendation from Validator

No	Suggestions and Comments	Repair
1.	Add some icons that show the CIBN model and the logo of the institutions involved in the research on the module cover	Already added
2.	Replace images that look like they are only attached with clearer images	Already repaired
3.	Give sources or references to the picture or writing quoted	Already added
4.	Give a description of the color on the	Already added
5.	Add creative imagination activities and reduce the number of images and assignments/exercises that are too much and adjust to the imagination stimulation stage that students can do	Already added and repaired

Comments and suggestions from the validators are then corrected according to the revisions given by the validators as shown in Figures 4-7 as follows.



4.a.Before

4.b.After

Figure 4. Module Cover Before and After

Explained, that the original cover 4.a. revised to 4.b. because it has not featured a variety of learning tools that are characteristic or frameworks of the CIBN model. Thus, in the second module cover image, emoticons that show emotional, artistic activities such as drawing and coloring, multilevel puzzles are added as symbols of the learning tools. Furthermore, a number of hijaiyah letters were also added to describe the material displayed in the module concerning the subject of Islam. The module cover was also revised to include a description of the researchers thanks to the two institutions involved and supporting the research. Therefore, the Ahmad Dahlan Yogyakarta University logo and the Muhammadiyah Mantaran Yogyakarta Elementary School logo were raised.



Figure 5. Picture inside the module Before and After

Clarified, that the first picture 5.a. amended to 5.b. since it looks less alluring and simply like just stuck on it. For this reason, further editing was done and improved. Furthermore, the points about sources of citations that were not yet contained in the module were corrected and added to the source completely.

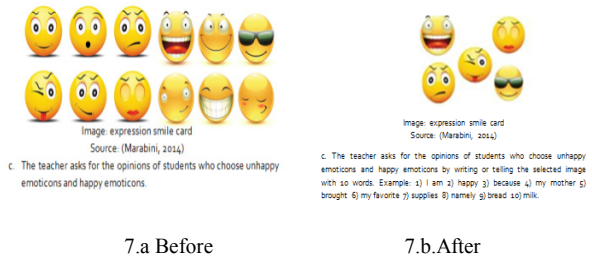


Figure 7. Adding activities and reducing the number of emoticon images

It was explained that the original picture 7.a was revised to 7.b to add creative imagination activities that could be done repeatedly. The activity also starts with a few activities, and many students can easily implement these activities instead of directly as shown in the figure before modification. The other improvements lied in the arrangement of the page, the unneat layout, and the contents of the module material.

The validation of the development learning module with CIBN model was carried out by two material experts (Islamic learning and the concept of creative imagination based on neuroscience) and media experts (learning modules). Validation data from material experts can be seen in Table 2.

INDICATORS OF COMPETENCE ACHIEVEMENT		
3.8.1	Mention the letter contained in the letter of choice in the Qur'an	<b>Attitude:</b> <ul style="list-style-type: none"> <li>Always assume good faith on Allah</li> <li>hasten to do something</li> <li>Be grateful</li> <li>Confidence</li> <li>Have high motivation</li> <li>To be responsible</li> <li>Discipline</li> </ul> <b>Skill:</b> <ul style="list-style-type: none"> <li>Communicating</li> <li>Express feelings</li> <li>Providing peer advice</li> <li>Focus on finding purpose</li> <li>Cooperate</li> </ul>
3.8.2	Identify the letters contained in the Al Quran	
3.8.2.1	Write hijayah letters marked with punctuation	
3.8.2.2	Read hijayah letters marked with punctuation	
3.8.3	Inventory punctuation marks on selected letters in the Al Quran	
3.8.4	Identify the names of selected short letters in the Quran	
4.8.1.1	Read Q.S. Al-Fatihah, An-Nas, Al-Falaq, Al-Ikhlis, AL-Lahab, An-Nasr, Al-Kautsar and Al-Asr separately	
4.8.1.2	Read Q.S. Al-Fatihah, An-Nas, Al-Falaq, Al-Ikhlis, AL-Lahab, An-Nasr, Al-Kautsar and Al-Asr as a whole	
4.8.2.1	Showing memorized Q.S. Al-Fatihah, An-Nas, Al-Falaq, Al-Ikhlis, Al-Lahab, An-Nasr, Al-Kautsar and Al-Asr separately	
4.8.2.2	Showing memorized Q.S. Al-Fatihah, An-Nas, Al-Falaq, Al-Ikhlis, Al-Lahab, An-Nasr, Al-Kautsar and Al-Asr as a whole	
4.8.3.1	Rewrite Q.S. Al-Fatihah, An-Nas, Al-Falaq, Al-Ikhlis, Al-Lahab, An-Nasr, Al-Kautsar and Al-Asr	

**Ket:**  
 Indicators at the first meeting  
 Indicators at the second meeting

Figure 6. Additional information on different writing colors

It was explained that the original image 6 was revised because there was no information on the writing in a different color. The green text indicates that the learning indicator is delivered at the first meeting while the orange text indicates that the learning indicator is delivered at the next meeting.

Table 2. Average Score Conversion

Interval Score	Value Criteria
$X > 75,6$	Very Good
$61,2 < X \leq 75,6$	Good
$46,8 < X \leq 61,2$	Poor
$32,4 < X \leq 46,8$	Not Good
$X \leq 32,4$	Very Not Good

Data from the assessment of material and learning experts obtained a maximum score of 90 and a minimum score of 18. Based on the overall assessment of the product by two material and learning experts (Al-Islam grade I elementary and Creative Imagination) obtained a score of  $X = 79.5$ , which is "Very Good" criteria. This score showed that the material of Al-Islam and creative imagination activities based on neuroscience is able to meet the achievement of learning indicators and stimulate students to imagine creativity. To achieve various goals in learning that are not only cognitive achievements but also affective and psychomotor learners, a teacher can design them with a particular learning system, one of which is through this creative imagination model. As expressed by Lima that there are some basic requirements that must be met by teachers in classroom learning, one of which is creating opportunities for students to provide input to them through imaginative and creative activities [54]. The following is explained in Table 3 on the results of the material feasibility assessment of each aspect of the assessment.

**Table 3.** Results of Analysis of Expert Material Assessment

No	Rated Aspect	Score	Interval Skor	Value Criteria
1	Content eligibility	27	$X > 25,2$	Very Good
2	Suitability for use of learning tools	22,5	$X > 21$	Very Good
3	Serving	30	$X > 29,4$	Very Good

Based on the expert assessment of the material and learning on the aspect of content worthiness consisting of 6 indicators obtained a score of 27, the maximum value is 30, the minimum value is 6,  $X_i = 18$ ,  $s_{bi} = 4$ , with the criteria of "very good" scores. In the aspect of appropriateness of the use of cognitive tools consisting of 5 indicators obtained a score of 22.5, a maximum value of 25, a minimum value of 5,  $X_i = 15$ ,  $s_{bi} = 3.33$ , with a criterion of "very good". In the aspect of the presentation consists of 7 assessment indicators obtained a score of 30, the maximum value of 35, the minimum value of 7,  $X_i = 21$ ,  $s_{bi} = 4.67$ , with the criterion of "very good".

Validation data from media experts (learning modules) can be seen in table 4.

**Table 4.** Average Score Conversion

Interval Score	Value Criteria
$X > 54,606$	Very Good
$44,202 < X \leq 54,606$	Good
$33,798 < X \leq 44,202$	Poor
$23,394 < X \leq 33,798$	Not Good
$X \leq 23,394$	Very Not Good

Data from the results of the assessment of the media experts (learning module) as a whole obtained a maximum score of 65 and a minimum score of 13. Based on the overall assessment of the product by the two media experts (the learning module) obtained a score of  $X = 54.5$ . This score showed that the CIBN module developed is in the "good" criteria that can be used by first grade Al Islam teachers of elementary school as a reference source for delivering learning material in addition to textbooks already in school. Students will be able to build understanding, skills, and interests when they are directly involved in the implementation of moral projects contained in the Al-Islam material facilitated by the teacher. Therefore modules developed through various approaches and the use of varied learning media can stimulate student development more optimally. This assumption is in line with the theory of social constructivism that has been developed by Vygotsky that a child's mental development is not a simple maturation of 'natural instincts,' but it occurs in the process of objective activities and communication with adults [55].

The following is explained in Table 5 on the module feasibility assessment results from each aspect of the assessment.

**Table 5.** Media Expert Assessment Results (Learning Module)

No	Rated Aspect	Score	Interval Skor	Value Criteria
1	Consistency	17,5	$X > 16,8$	Very Good
2	Format	12,5	$10,2 < X \leq 12,6$	Good
3	Organization	8	$6,8 < X \leq 8,4$	Good

Based on the assessment of two media experts on the consistency aspect which consisted of 4 assessment indicators, a score of 17.5 was obtained; the maximum value is 20, the minimum value is 4;  $X_i = 12$ ,  $s_{bi} = 2.67$ , with "Very Good" value criteria. In the format aspect consists of 3 assessment indicators obtained a score of 12.5; the maximum value is 15, the minimum value is 3;  $X_i = 9$ ,  $s_{bi} = 2$ , with "Good" value criteria. Organizational aspects consist of 2 assessment indicators obtained a score of 8, a maximum score of 10, a minimum score of 2;  $X_i = 6$ ,  $s_{bi} = 1.33$  with "Good" value criteria. In the aspect of attractiveness consisting of 4 assessment indicators obtained a score of 16.5; the maximum value is 20, the minimum value is 4;  $X_i = 12$ ,  $s_{bi} = 2.67$ , with "Good" value criteria.

## 4. Conclusions

All information reported in this study is to describe the learning module using the Creative Imagination Based on Neuroscience Model (CIBN) and evaluate the feasibility of the developed module based on the validity test by a team of material experts and media experts. Based on the results obtained, the clear value is that the CIBN Module can be developed by following the steps in the development of the learning module or media and the development framework of the concept of creative imagination in al-Islam learning. Finally, it is hoped that this research will provide some guidance and references to enhance the development of further learning modules. This effort is to increase students' creativity in a more effective way to bring a positive impact on Islamic education in particular, especially in online learning in the current new reality or the new normal conditions. Creative imagination based on Neuroscience is one of the appropriate learning models and has the right momentum to be developed further.

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