

Research Article

Learning style and motivation: gifted young students in meaningful learning

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Article Info

Received: 31 October 2020
Revised: 15 February 2021
Accepted: 27 February 2021
Available online: 15 March 2021

Keywords:

Meaningful learning
Young gifted students
Young gifted students' motivation
Young gifted students' learning
styles
Recursive

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Abstract

This study aims to look at how the learning styles of young gifted students in Islamic education which is meaningful learning, then also see how the learning motivation, and how the influence of learning styles of learning motivation of the young gifted students. This research is a mixed study using a sequential explanatory approach. The sample of this study is the children of the young gifted students at Elementary education level, which focuses on Islamic learning. This research was conducted in two different places, namely in urban areas and in rural school areas. Researchers used a purposive sampling technique to get a number of samples, based on the technique were used, obtained by 108 students participating, with 57 students from urban school areas and 51 students from rural school areas based on the grades given by the teacher. Two types of instruments have been used in this study, namely questionnaires relating to learning styles and student motivation, as well as in-depth interview guides. The questionnaire uses a Likert scale of 5 with a Cronbach alpha value of 0.81 for the learning style questionnaire and 0.79 for the student learning motivation questionnaire. Data analysis in the form of descriptive statistics such as mean, frequency, percentage, standard deviation, min and max, and inferential statistics such as simple regression and independent sample t-test was used to answer the question of the study. The results show that the learning styles of the young gifted students in Islamic learning are very varied and good, both urban and rural school areas. Motivational results also show very good results where students feel motivated by meaningful learning both in urban school areas and rural school areas. Furthermore, further analysis shows the significant influence of student learning styles on student motivation. Independent sample t-test also shows that there are differences in the mean of students' learning styles and motivation among students who study in urban areas and students who study in rural areas, which have higher motivation and learning styles in urban students compared to students who study in rural areas. Lastly, researchers hope that further research will examine the Indonesian young gifted students, especially research, such as learning styles with student learning outcomes, or motivation towards learning outcomes, which focus on Islamic learning with the implementation of meaningful learning.

To cite this article:

Zubaedi., Amin, A., Asiyah., Suhirman., Alimni., Amaliyah, A., Kurniawan, D. A. (2021). Learning style and motivation: gifted young students in meaningful learning. *Journal for the Education of Gifted Young Scientists*, 9(1), 57-66. DOI: <http://dx.doi.org/10.17478/jegys.817277>

Introduction

Learning is a process of the development of human life. Through learning, humans experience a process of change so that their knowledge, behavior, understanding, and skills change (Tanti et al. 2018). A quality learning process can be created if students and educators play an active role in it (Azahary, Supahar, Kuswanto, Ikhlas & Devi, 2020). Students and educators, interact in an activity called learning that takes place in the learning process (Asrial, Syahrial,

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Maison, Kurniawan & Piyana, 2020). Efforts to realize an effective and efficient learning process, the instructor should be able to realize teaching behavior appropriately, in order to be able to realize the learning behavior of students through effective learning interactions in a conducive learning process.

In the learning process, a person needs a way that is considered suitable or comfortable with what he lived during the learning process. Comfort in learning is a learning style that is considered suitable by the learner (Holliday & Said, 2008; Gurpinar, Alimoglu, Mamakli, & Aktekin, 2010). Learning style is a combination of how students absorb lessons, then organize and process information (Abante, Almendral, Manansala, & Mañibo, 2014). Learning style is not only an aspect when dealing with information, seeing, listening, writing, and saying, but also aspects of secondary processing, analysis, global, or left-brain or right-brain, other aspects are when responding to something about the learning environment be it absorbed abstractly or concretely. All people of all ages can really learn anything if allowed to do it in a unique style that is in accordance with their own personal strengths (Uğur, Akkoyunlu & Kurbanoglu, 2011). These students are better able to display consistent performance if the working conditions match the preferences of their individual style, this is the same as student learning styles. If students learn using their learning styles, students will more easily process the material provided by the teacher to her/him.

In effective learning, not only with learning methods and approaches, but learning styles also affect the success of learning (Riener & Willingham, 2010; Gilakjani, 2012). Based on the results of research, the most appropriate teaching methods all fail, because each teaching method is very dependent on student learning styles and ability to understand the material (Komarraju, Karau, Schmeck & Avdic, 2011). Thus, it can be concluded that improving the quality of learning is very dependent on the learning styles of students, by using an effective and enjoyable learning style, students can improve learning outcomes, motivation and learning enthusiasm even though the material taught by educators is quite complicated for them.

Every child has a different level of intelligence (Asrial, Syahrial, Kurniawan & Anandari, 2020). Each child has a different learning, character, different habits, with a different way of learning, there are those who prefer learning while playing, telling stories, or listening. Many students are very focused and very enthusiastic about activities outside the classroom, but in class they do not pay attention to the lesson, there are also students who are active outside the classroom, but also active in the class, there are students who are not enthusiastic about both. There are also students who do have a level of intelligence from birth, and there is also a gradual intelligence level. In terms of the environment can also affect students in learning (Wang & Holcombe, 2010; Reyes-García et al. 2010). So, with this educator must be smart in choosing which learning style is appropriate for the students who can generate motivation and learning outcomes. Because there are still many educators who have not been able to use appropriate learning styles in the learning process. Educators must have a variety of teaching tricks, namely learning styles that include visual, audio and kinesthetic or practice, to help students learn (Roach, 2014). In the use of learning styles in the learning process, educators can also be assisted by learning media. Learning media that can be used in visual learning styles such as educational videos or films, graphics and pictures, audio learning styles using learning media in the form of listening or radio, and kinesthetic learning styles that can use learning media that optimizes motion functions.

With a learning style that is assisted by diverse educational media, educators can enhance effective learning styles in the classroom and educators will have a steadier and more trustworthy handle to provide enjoyable lessons (Buckley, & Doyle, 2017; Darmaji et al. 2019). Learning styles can also affect students' personal learning, it can be said that students are scientifically motivated which makes the learning process of students more effective (Tai, 2013; Ghaedi, & Jam, 2014). Scientific attitudes such as self-motivation towards the teaching-learning process will give a critical attitude to the way of learning and encourage to search a path that guarantees more success. With the emergence of motivation, students will be able to learn by themselves (Reeve, 2012). Motivation will change students' perceptions that the lessons taught are not difficult, and do not haunt students in working on problems.

Students who have high learning, motivation are very likely to get better learning outcomes because he will try hard with all the effort to learn the subject (Chang et al. 2014; Dogan, 2015). Therefore, learning motivation is very important in achieving student learning success. Everyone who does various learning activities, of course, does it because there is something underlying it. Motivation is what will affect the learning process and learning outcomes that will be achieved both directly and indirectly (Eisenkopf, 2010; Ushioda, 2012). Generally, motivation will encourage behavior and influence and change behavior. Students who carry out their learning activities cheerfully, happy without feeling depressed will facilitate the effective teaching and learning process because it is naturally motivated. Basically, motivation is aroused desire or action to do something so that it can get the desired results

(Kim, & Pekrun, 2014). So motivated students will easily accept the lesson. For a student, the role of motivation is very important. With the motivation provided by educators through the intermediary of learning styles, it will support a very enjoyable learning process and eliminate the perception that learning in the classroom is creepy.

Furthermore, some research on learning styles in Indonesia tends to be for students in general both elementary school, high school, and the bachelor's degree (Surjono, 2015; Leasa & Corebima, 2017; Rahman & Ahmar, 2017). In the research conducted by researchers, researchers focused on the young gifted students in elementary school. Interestingly, every school that is targeted for research applies meaningful learning-based learning. Meaningful learning is an approach that allows students to work on diverse activities to develop their skills, attitudes, and understandings with an emphasis on learning while working (Keskitalo, Pyykkö & Ruokamo, 2011). Meanwhile, the teacher uses various resources and learning aids, including the use of the environment, so that learning is more interesting, enjoyable, and active (Baid, & Lambert, 2010). Furthermore, researchers are also more focused on student learning styles and their effects on student motivation to learn Islamic education. This research focuses on answering several questions, such as:

- What is the learning style of the young gifted students of elementary school in Islamic education learning?
- What is the motivation for learning the young gifted students of elementary school in Islamic education learning?
- How does the influence of the young gifted students' learning style toward their motivation in learning Islamic education?
- Is there any differences gifted students learning styles and motivations in who enrolled urban or rural cities?

Method

Research Design

This research is mixed research that combines quantitative and qualitative sequential explanatory approaches (Creswell, & Clark, 2017). The sequential explanatory approach in its use, prioritizing quantitative data followed by qualitative data (Bakla, 2018). Quantitative data in this study describe how the description of the results of learning styles and learning motivation of young gifted students, then see how the influence of learning styles of learning motivation. Furthermore, the researchers confirm the research by taking qualitative data, in which qualitative data aims to strengthen quantitative data.

Research Sample

Research that has been conducted in Elementary Education, Bengkulu Province with two different regencies or cities, namely Seluma Regency and Bengkulu City. There are 6 Elementary Education sites which are the research sites where 3 schools from Bengkulu City and another 3 schools from Seluma Regency. The participants of this study are sixth graders, who have above average ability or young gift in each of these schools. In the Indonesian setting, there is usually 1 class per grade for the young gifted children. Furthermore, in selecting participants, the researcher used a sampling technique, purposive sampling, in which the researcher determined his own criteria (Lichtman, 2012). These criteria are schools that have a place for the young gifted children, and then the children who are taken in the sixth grade at each school. For details on the distribution of the number of participants for each of the young gifted children from the Elementary Education in Bengkulu City and Seluma Regency, where 108 students participated, with 57 students from urban areas, and 51 students from rural areas, as indicated by the following table 1.

Table 1.
Distribution of the Participants

Regency / City	School	Sample (n)
Bengkulu City	SDN 52	20
	SDN 5	18
	SDN 20	19
Seluma Regency	SDN 23	19
	SDN 164	17
	SDN 60	15
Total (N)		108

Instrument and Procedure

In this study, there are two types of instruments, namely, questionnaire and interview. The questionnaire is used to get quantitative data (Muijs, 2010; McMillan, & Schumacher, 2010), while the interview is used to get qualitative data (Atkins, & Wallace, 2012). There are two questionnaires used, namely a questionnaire related to student learning styles, and a questionnaire related to student learning motivation. Questionnaires related to learning styles were developed by researchers based on three categories of learning styles such as audio, visual, and kinesthetic. This questionnaire has valid 30 items, with 10 items for the audio learning styles, 10 items for visuals, and 10 items for kinesthetic. This questionnaire has a Cronbach alpha of 0.81. While the questionnaire related to learning motivation was independently developed by researchers. The questionnaire consisted of 25 items valid, which focused on looking at the motivation to learn from the young gifted students. The questionnaire has a Cronbach alpha of 0.79. For each of the questionnaire, categories are shown in table 2. While the interview questions used, developed by the researchers themselves, adjust to the questionnaires that have been used.

Table 2.
Categories of Questionnaire Learning Styles and Motivation in Islamic Learning

Learning Styles			Motivation		
Category	Auditory	Visual	Kinesthetic	Category	Interval
Very low	10.00 – 18.00	10.00 – 18.00	10.00 – 18.00	Very poor	25.00 – 45.00
Low	18.01 – 26.00	18.01 – 26.00	18.01 – 26.00	Poor	45.01 – 65.00
Fair	26.01 – 34.00	26.01 – 34.00	26.01 – 34.00	Fair	65.01 – 85.00
High	34.01 – 42.00	34.01 – 42.00	34.01 – 42.00	Good	85.01 – 105.00
Very High	42.01 – 50.00	42.01 – 50.00	42.01 – 50.00	Very Good	105.01 – 120.00

Data Analysis

SPSS 25 has been used in this study. The SPSS is used to analyze quantitative data both descriptive and inferential statistics. Descriptive statistical data used are frequented, percentage, min, max, and mode, which types of data can explain the quantitative results of participants (Muijs, 2010; Darmaji et al. 2019). Furthermore, inferential statistics displayed are regression tests and independent sample t-tests. Regression is used to see the influence of variables (Seber & Lee, 2012), which is the influence of the learning style of each young gifted on learning motivation. Meanwhile, the independent sample t-test was used to see the difference between the two different means (Muijs, 2010), where the researcher wanted to see the results of the difference between students who went to school in urban areas, Bengkulu City, and students who attended rural schools, Seluma Regency. Afterward, the flow of this research begins by selecting the study sample. Then, researchers spread questionnaires related to student motivation and learning styles. Lastly, researchers conducted interviews with several students. More clearly about the research procedure, can be seen in Figure 1 below.

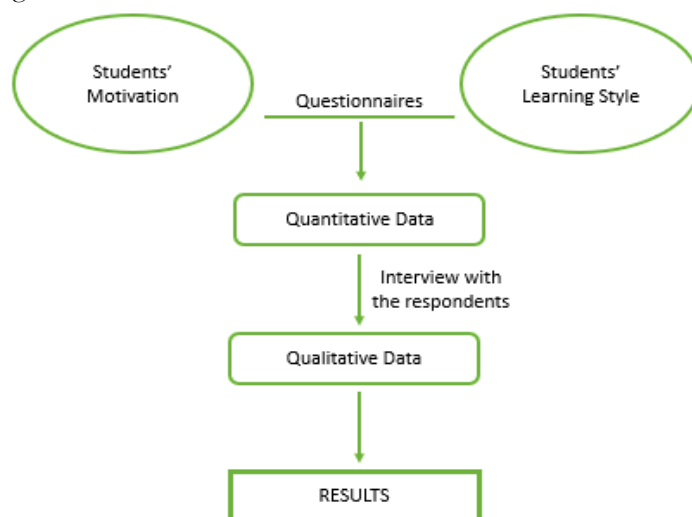


Figure 1.
Data Collection Procedure

Results and Discussion

The novelty of this study has been shown in exploration of the young gifted students' motivation and learning styles, as well as how these learning styles affect their motivations in learning. In addition, researchers also made a comparison between students in rural schools and students in urban schools. Some of the studies found were discussed in this section, quantitative results are explained through several forms such as descriptive statistics such as frequency, percentage, standard deviation, min, mode, mean and max; and inferential statistics like regression and independent sample t-test.

Learning Styles of the Gifted Young Students

In this section, researchers show the descriptive results of the learning styles of the young gifted children in learning Islamic Education both in urban schools and rural schools. These results can be shown in table 3 and table 4.

Table 3.

Learning Styles of the Young Gifted Students in Islamic Learning in Urban Schools

Learning Styles	Category (f, %)					N	Mean	SD	Min	Max
	Very Low	Low	Fair	High	Very High					
Auditory	0 (0)	0 (0)	3 (5.26)	24 (42.11)	30 (52.63)	57	44.64	2.91	28	50
Visual	0 (0)	0 (0)	5 (8.77)	25 (43.86)	27 (47.37)	57	42.91	2.67	27	50
Kinesthetics	0 (0)	0 (0)	4 (7.02)	20 (35.09)	33 (57.89)	57	47.12	3.02	30	50

Based on table 3 shows that the young gifted students' learning styles in learning Islamic about urban schools' area as much as 57 respondents. Students' learning styles for auditory type dominated by very high category, as many 30 (52.63%) students. In learning styles of visual type dominated very high category as 27 (47.37%) students. And for the kinesthetics type dominated very high category as 33 (57.89%) students.

Table 4.

Learning Styles of the Young Gifted Students in Islamic Learning for Rural Schools

Learning Styles	Category (f, %)					N	Mean	SD	Min	Max
	Very Low	Low	Fair	High	Very High					
Auditory	0 (0)	0 (0)	8 (15.69)	25 (49.02)	18 (35.29)	51	39.01	2.91	26	50
Visual	0 (0)	0 (0)	9 (17.65)	23 (45.10)	19 (37.25)	51	40.12	2.98	27	50
Kinesthetics	0 (0)	0 (0)	4 (7.84)	26 (50.98)	21 (41.18)	51	41.17	2.87	28	50

Based on table 4 shows that the young gifted students' learning styles in learning Islamic about rural schools' area as much as 51 respondents. Students' learning styles for auditory type dominated by high category, as many 25 (49.02%) students. In learning styles of visual type dominated by high category as 23 (45.10) students. And for the kinesthetics type dominated by high category as much as 26 (50.98%) students.

Motivation of Talented Young Students in Learning Islamic Education

In this section, researchers show the descriptive results of the motivation of the young gifted children in learning Islamic Education both in urban schools and rural schools. These results can be shown in table 5 and table 6.

Table 5.

Motivation Result of the Young Gifted Students in Urban Schools

Motivation		Frequency	%	SD	Mean	Min	Max
Category	Range						
Very poor	25.00 – 45.00	0	0.00				
Poor	45.01 – 65.00	0	0.00				
Fair	65.01 – 85.00	3	5.26	6.43	100.89	79	120
Good	85.01 – 105.00	33	57.89				
Very Good	105.01 – 120.00	21	36.84				
Total		57	100				

Based on table 5 shows that the motivation of the young gifted students in urban schools as much as 57 respondents, dominated by good categories as many as 33 respondents or 57.89%. So, the motivation of the young gifted students in learning Islamic education in urban school areas is categorized good. Then table 5 also shows the

motivation of the young gifted student which fair category as much as 5.26%, and for the very good category is 36.84%. Meanwhile, for the very poor and poor category is none. Of the 57 students have a mean value of 100.89, a maximum value of 120, and a minimum value of 79.

Table 6.*Motivation Result of the Young Gifted Students in Rural Schools*

Motivation		Frequency	%	SD	Mean	Min	Max
Category	Range						
Very poor	25.00 – 45.00	0	0.00				
Poor	45.01 – 65.00	0	0.00				
Fair	65.01 – 85.00	5	9.80	6.79	93.27	71	120
Good	85.01 – 105.00	34	66.67				
Very Good	105.01 – 120.00	12	23.53				
Total		51	100				

Based on table 6 shows that the motivation of the young gifted students in rural schools as much as 51 respondents, dominated by good categories as many as 34 respondents or 66.67%. So, the motivation of the young gifted students in learning Islamic education in rural school areas is categorized good. Then table 5 also shows the motivation of the young gifted student which fair category as much as 9.8%, and for the very good category is 23.53%. Meanwhile, for the very poor and poor category is none. Of the 51 students have a mean value of 93.27, a maximum value of 120, and a minimum value of 71.

The Regression between Young Gifted Students' Learning Styles toward Their Motivation

For the results of the impact of young gifted students' learning styles with students' motivation can be seen in table 7 below.

Table 7.*The Results of Regression*

Variable	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
Constant	8.291	2.434		6.670	.000
Learning styles	1.341	.126	.135	2.142	.005

From table 7, it gets the results of a simple regression test between learning styles on learning motivation, which obtained equation is $Y = 8.291 + 1.341X$, which means that students' learning styles effects students' motivation ($p < 0.05$). Furthermore, how much influence the learning styles have on student motivation is shown in table 8 below.

Table 8.*The magnitude of the influence of learning styles on student motivation*

Model	R	R square	Adjust R Square	Std. Error of the Estimate
1	.561	.532	.515	1.876

Table 8 shows the influence of students' learning styles on their motivation. The results of simple regression analysis presented that the rate of coefficient of determination were (R^2) 0.532, which means that the contribution of students' learning styles toward to motivation is 53.2%, while the remaining 46.8% is influenced by other variables.

Differences in Young Gifted Students' Learning Styles and Motivation Based on Urban and Rural Schools

To seek out whether there is a difference between young gifted students' learning styles and motivation in learning Islamic education based on urban and rural schools' area, an independent sample t-test was used. Table 9 shows the difference between young gifted students' learning styles in elementary school based on urban and rural schools' area. Meanwhile, table 10 shows the difference between young gifted students' motivation in learning Islamic for elementary school based on urban and rural schools' area.

Table 9.*Independent Sample T-test for Young Gifted Students' Learning Styles in Learning Islamic Education*

Learning styles	School Area	Mean	Std. Deviation	T	df	Sig.	95% confidence interval	
							Lower	Upper
	Urban	4.056	.1825	1.685	106	0.015	1.445	.3200
	Rural	3.632	.2025	1.685	102.026		1.823	.4625

Based on table 9, the result shows if that there are differences between young gifted students' learning styles in learning Islamic based on elementary school area ($t_{(106)} = 1.685$, $p < 0.05$), where students who are schooling in urban schools' area ($M=4.056$, $SD = 0.1825$) has higher learning styles than students who are schooling in rural schools' area ($M=3.632$, $SD = 0.2025$).

Table 10.*Independent Sample T-test for Young Gifted Students' Motivation in Learning Islamic Education*

Motivation	School Area	Mean	Std. Deviation	T	df	Sig.	95% confidence interval	
							Lower	Upper
	Urban	4.109	.1620	1.433	106	0.009	1.366	.2920
	Rural	3.628	.1728	1.433	103.521		1.912	.5535

Based on table 10, the result shows if that there are differences between young gifted students' motivation in learning Islamic based on elementary school area ($t_{(106)} = 1.433$, $p < 0.05$), where students who are schooling in urban schools' area ($M=4.109$, $SD = 0.1620$) has higher motivation than students who are schooling in rural schools' area ($M=3.628$, $SD = 0.1728$).

Discussion and Conclusion

Based on the results of the study found that the learning styles that exist in the young gifted students in Islamic learning both urban and rural are very diverse, and obtained high scores both auditory, visual and kinesthetic. This indicates that learning styles in young gifted children have a variety of learning (Andheska, Suparno, Dawud & Suyitno, 2020), and does not depend on one learning style (Kuo, Maker, Su & Hu, 2010; Mooij, 2013). Of course, this is very good for young children who are gifted, where they can be easily guided by teachers with a variety of diverse methods and approaches to learning. Furthermore, the results also show that there is a significant influence on students' learning styles on their motivation in Islamic learning. This indicates that the more varied learning styles of young gifted students, the higher the motivation.

Furthermore, the researchers gave interview findings toward several students, including one from students from rural areas, how their learning motivation was based on meaningful learning by the teacher, as shown by the following manuscript.

"In the process of teaching and learning in Islamic studies in general, my motivation for learning is quite good, the motivation arising from within me is inseparable from my sincerity in learning and reducing play and every task I always do, both being told to look at books or newspaper. So, the information that I have is more complete... "

Then there are also the results of other interviews with students who come from urban schools.

"... When we study with Islamic education teachers, we always pay attention to the teacher explaining the lesson ahead, although sometimes we don't pay attention, we are more dominant to pay attention. We are very happy to learn with these Islamic teachers, we are very motivated because the teachers like to tell stories and joke, so we are orderly when following the learning process... "

From the explanation above, it can be concluded that most of the young gifted students in Islamic learning are good enough to follow the learning process, they show it with high learning motivation. This high learning motivation appears when they follow the teaching and learning process seriously.

Lastly, there were also interviews with children who came from rural schools.

"We attend Islamic lessons with the teacher, we are not noisy, we always pay attention to the teacher in explanation of the lesson in front, and we record what the teacher wrote on the blackboard when the teacher explains the Islamic

subject matter, the material is related to events in life, both in society and events in the course of government. With an explanation like this, we are very diligent and focused on following the teacher's explanation. "

Looking at the information that has been stated above, it can be concluded that in the teaching and learning process in several rural schools, most students pay attention or focus on the teacher who is delivering the subject matter. An activity of teaching and learning process is inseparable from the planning that has been done by the teacher in learning because thus it will provide clear direction in every schedule conducted by the teacher (Fernandez, 2010; Fujii, 2019). With the application of meaningful learning based on good learning, it will produce a good teaching and learning process as well (Darling-Hammond & Snyder, 2015; Romance, & Vitale, 2013).

In the application of meaningful learning in the implementation of teaching and learning in Islamic education in elementary schools in urban and rural schools, most students have the motivation to learn well. This can be seen when they follow the learning process, where students are focused and earnest in following the learning process, and when given the opportunity to ask questions, some students ask questions. In the application of meaningful learning in Islamic subjects in the implementation of the teaching and learning process, it is very necessary that the attention of students (Gadelshina, Vemury & Attar 2018; Mendoza, & Mendoza, 2018), so that what is explained by the teacher in front can be understood properly (Vachliotis, Salta, & Tzougraki, 2014), this is evident when they follow the learning process in the classroom looks orderly, seriously so there is no commotion in the classroom.

Furthermore, it is known that there are several benefits in applying meaningful learning, especially for the young gifted students such as information that is learned meaningfully longer can be remembered; new information built by students will facilitate the next learning process for continuous learning material; and, information that is forgotten after the new knowledge structure is built will facilitate the process of learning things that are similar even though they have been forgotten (Lee, 2011; Tirri, Kuusisto & Aksela, 2013; Tolppanen & Aksela, 2013; Özgür, & Yılmaz, 2017).

Lastly, it can be concluded that the research that has been done, the young gifted students both in rural and urban elementary schools have varied learning styles, although there are differences between urban and rural schools. This can be caused by the environment in urban areas which is more comprehensive than the environment in rural areas (Astalini, Kurniawan, Darmaji & Anggraini, 2020). In addition, the results of motivation from both urban and rural areas also found differences. Nevertheless, the motivation of the young gifted students is very high in learning, this is certainly very useful for them in participating in learning, and makes it easier for teachers to prepare for learning.

Recommendations

The results show that student learning motivation is very good in Islamic learning after the implementation of meaningful learning. Given the importance of the role of motivation for students in learning, the teacher is expected to be able to arouse and maintain and increase student motivation. In order for students to achieve optimal learning outcomes, students must have high learning motivation. In addition, it was found that the learning styles of young gifted children vary greatly in not one type of learning style. Of course, this is very important for teachers to be able to combine methods and approaches to learning that are right for their students. Furthermore, the researchers hope for further research related to meaningful learning, namely how the influence of meaningful learning increases student learning achievement, whether there is a relationship or not. In addition, researchers felt the need for further research on the relationship between learning styles and student motivation towards learning outcomes and their performance, especially the young gifted children.

Limitations of Study

The limitation in this study is to only look at the influence between learning styles and motivation of gifted students in two situations (urban and rural).

Acknowledgments

Thanks to the whole school principal who has given me permission to do research at his school. And all the teachers who helped during the study and all the respondents who had been willing to help me to be sampled in this study, I thank you as much as possible.

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