THE INFLUENCE OF LEARNING STRATEGIES FOR CONCEPT MAPS AND THINKING STYLES ON THE LEARNING OUTCOMES OF ISLAMIC RELIGIOUS EDUCATION AND ETHICS

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Abstract: The learning strategies used by teachers so far have not been optimal, causing student boredom which results in low learning outcomes. This study used an experimental method with a quasi-experimental design with a 2 x 2 factorial design. Through this design, the effect of concept map and expository learning strategies on the learning outcomes of Islamic Religious Education and Student Characteristics was compared to the students. The population of this research was all class IV SD Negeri 112256 Sabungan, Sungai Kanan District, South Labuhanbatu Regency which consisted of 3 classes. Each class in the population has the same characteristics, meaning that each class does not have students who have lived in class, the average student has an age that is not significantly different, using the same educational curriculum. In addition, class division is not carried out based on incoming ranking, so that there are no superior classes with different student characteristics. The sampling technique in this study was a cluster random sampling technique, ie from 3 classes 2 classes were selected as samples subject to treatment through random selection. The findings of this study are: First, based on the

calculation of ANOVA, it turns out that the value of F-count = 27.44> F-table = 3.98 so that it can be concluded that the learning outcomes of Islamic Religious Education and Characteristics of students taught by concept map learning strategies are higher than with the learning outcomes of Islamic Religious Education and the character of students who are taught with expository learning strategies that are proven true. Second, based on the calculation of ANOVA, it turns out that the value of F-count = 6.17> F-table = 3.98 so that it can be concluded that the learning outcomes of Islamic Religious Education and Characteristics of students with a sequential thinking style are higher than the learning outcomes of Islamic Religious Education and The character of students with random styles thinking is verified. Third, based on the calculation of ANOVA, it turns out that the value of F-count = 18.27> F-table = 3.98 so that it can be concluded that there is an interaction between learning strategies and thinking styles in influencing the learning outcomes of Islamic Religious Education and student's character is proven.
Keyowrd: *Learning Strategy, Concept Map, Thinking Style*

INTRODUCTION

The learning strategies used by teachers so far have not been optimal so as to cause the onset of student boredom which results in low learning outcomes. To reduce or even avoid learning strategies that are too monotonous, various learning strategies are more effective in creating multi-way communication, so it is expected to also cause and increase proactive interaction in the learning of Islamic Religious Education and characteristics. For this reason, the improvement of the learning process in the classroom can be focused on aspects of learning activities.

Whatcan be done to improve learning outcomes is to improve the quality of learning by implementing appropriate learning strategies and in accordance with the characteristics of teaching materials and the characteristics of learners. Learning activities are the core of educational activities themselves that are inseparable from the role of teachers. The ability of teachers to master learning technology to plan, design, implement and evaluate and conduct *feedback* is an important factor to achieve learning goals. The ability of teachers to master learning materials, teaching styles, media use, strategy determination and selection of

learning methods is an effort to launch the learning process and improve learning outcomes.[1]

There are various kinds of learning strategies that teachers can use in the classroom, one of which is the concept map learning strategy. [2] In learning the concept map starts from the problem of the student's daily experience so that students can be involved in the meaningful learning process. The role of teachers is mainly as a guide and facilitator for students in the process of reconstructing ideas and concepts of Islamic Religious Education and characteristics. The role of the teacher here changes from a facilitator and guidewho appreciates every job and student's answer.

In concept map learning, teachers are more facilitators like a team that works with students in exploring sources of information and teachers are tasked with helping students to achieve learning goals. Teachers in learning concept maps more deal encourage students to be actively involved in constructing their own desired knowledge of students. The concept map learning strategy aims to nurture students in developing the cognitive, affective and psychomotor aspects of students comprehensively (thoroughly) and interacting with their environment.

Therefore, it is suspected that students with different thinking style characteristics will experience differences in understanding of different Islamic Religious Education teaching materials. In this case students who with a squiensal thinking style will have an impact to take initiative, strong learning willingness and readiness to learn that can be above themselves without depending on others, this is otherwise not the case for students with a level of random thinking style. The existence of differences in the level of thinking style between students with the level of squisitive thinking style and students with the level of random thinking style is suspected to give a different influence on the acquisition of student Islamic Education learning outcomes.

Paying attention to the above, then the teacher can adjust, compile and create relevant teaching materials to help and direct the readiness of

[1] Kunandar, *Penilaian Autentik (Penilaian Hasil Belajar Pesrta Didik Berdasarkan Kurikulum 2013*, *Jurnal Evaluasi Pendidikan*, 2015.

[2] Azizah Fatmawati, "Penerapan Strategi Pembelajaran Peta Konsep Berbasis Teknologi Komputer," *Abdi Teknoyasa*, 2020, Https://Doi.Org/10.23917/Abditeknoyasa.V1i1.36.

students to receive the subject matter in learning pay attention to the learning strategies applied and the characteristics of students in this case is the style of thinking.

METHOD

This study used experimental methods with *a quasi design* of 2 x 2 factorial design experiments. Through this design will be compared the influence of concept map learning strategies and expositories on the learning outcomes[3] of Islamic religious education reviewed from students. Concept map learning strategies and expositories are treated to experimental groups of students with different thinking styles. Learning strategies map concepts and expositories as free variables, Differences in thinking styles as moderator variables and the acquisition of learning outcomes in Islamic Religious Education subjects as bound variables. These variables are further included in the design of the study as seen in Table 2.

Table 2. Research Design

Thinking style (B)	**Stretegi Learning (A)**	
	Map Konsep (A) $_1$	**Expository (A)** $_2$
Squisential (B) $_1$	A B $_{1\,1}$	A B $_{2\,1}$
Random (B) $_2$	A B $_{1\,2}$	AB $_{2\,2}$

Information:

A: Learning strategies

B: Thinking style

A: Concept map learning strategy $_1$

A $_2$: Expository strategy

B $_1$: Squirtial thinking style

B $_2$: Random thinking style

A B: Student learning outcomes are taught with concept map strategies in students with $_{1\,1}$ a squiensual style of thinking

[3] Sugiono, *Metode Penelitan Kuantitatif, Kualitatif Dan R&D*, *Bandung: Alfabeta*, 2016.

A B: Student learning outcomes are taught with concept map strategies in students with $_{1\ 2}$ random thinking styles

A B: Student learning outcomes taught with expository strategies in students with $_{2\ 1}$ a squirtial style of thinking

AB: Student learning outcomes taught with expository strategies in students with $_{2\ 2}$ random thinking styles

The population of this study is the entire[4] Kelas IV SD Negeri 112256 Sabungan District of Sungai Kanan, South Labuhanbatu Regency which consists of 3 classes. Every class in the population has the same characteristics, meaning that each class has no students who have ever lived in a class, the average student has a significantly different age, using the same educational curriculum. In addition, the division of classes is not carried out based on the entrance ranking, so there are no superior classes whose student characteristics are different.

Sampling technique in this study is a random group sample technique *(cluster random sampling)*[5] that is from 3 classes selected 2 classes as samples that are subjected to treatment through random selection. The stages in carrying out the sample withdrawal process are carried out by taking the following steps.

(1) Mwrites the class name on a small sheet of paper.
(2) Putthe small sheets /rolls of paper in a box to draw.
(3) Mplucked two sheets of lottery paper, after being selected two classes, the two drawing papers were put again in another box. Results were obtained in class IV-b using concept map learning strategies and class IV-a using expository learning strategies.

The data collection instrument used is a test. The test is used to capture data on islamic religious education learning outcomes and students' thinking styles. Untuk obtain data on student Islamic Religious Education learning results is used to test learning results. The form of learning outcome test used is a form of multiple *choice* test. Test results of learning Islamic Religious Education asmany as 40 questions. Each correct answer is given a value of 1 (one), and the wrong answer is given a value of 0 (zero). As for collecting data on students' thinking

[4] Subagio B. Prajitno, "Workshop Metodologi Penelitian Kuantitatif," *Jurnal Penelitian Publik*, 2015.

[5] Ma'ruf Abdullah, *Metode Penelitian Kuantitatif*, *Aswaja Pressindo*, 2015.

styles, the standardized test is a test designed by Bobbi De Porter and Mike Hernacki in quantum learning. The thinking style test consists of 15 test items.

In this study, a trial of learning outcome test instruments was conducted on students of grade[6] IV-c.

1. Test the Validity of the question items

To determine the validity of the study result test, a question validity test is carried out using the biserial p oint correlation. Valid criteria if $r_{calculates} > r_{table}$ at real level = 0.05. αThe biserial point correlation formula as expressed by Surapranata is as follows:

$$r_{bis} = \frac{M_p - M_t}{SD} x\sqrt{\frac{p}{q}}$$ [7]

The results of validity tests that show problems with invalid or deciduous categories are not used to capture data on student Islamic Religious Education learning outcomes.

2. Reliability Test.

Testing reliability test of islamic religious education learning results test used kr-21 formula:

$$r_{11} = (\frac{n}{n-1})(1 - \frac{\overline{X}(n-\overline{X})}{nS_t^2})$$ [8]

Reliable test criteria are explained by Anas Sudijono if the test reliability coefficient is ≥ 0.70.[9]

3. Difficulty Index Test

Testing the difficulty index of the Islamic Religious Education learning results test instrument used the formula to find the level of difficulty is:

$$P = \frac{B}{JS}$$ [10]

[6] Siti Romlah, "Penelitian Kualitatif Dan Kuantitatif (Pendekatan Penelitian Kualitatif Dan Kuantitatif)," *Pancawahana: Jurnal Studi Islam*, 2021

[7] Surapranata, S. *Analisis Validitas, Reliabilitas Dan Interpretasi Hasil Tes*, (Bandung: Remaja Rosdakarya, 2004),H. 65

[8] *Ibid*, H. 70

[9] Anas Sudijono, *Pengantar Evaluasi Pendidikan*. (Jakarta: Rajawali Pers, 2002), H.146

Indeks difficulty is classified as follows:

The problem with the number P: 0.00 to 0.30 is difficult

The problem with the number P: 0.31 to 0.70 is medium

The problem with the number P: 0.71 to 1.0 is easy.

Problems with categories are easily not used to capture data on student Islamic Religious Education learning outcomes.

4. Different Power Tests

Testing daya different or discrimination index (D) test of learning results is usedas follows formula:

$$D = \frac{BA}{JA} - \frac{BB}{JB} = PA - PB$$ [11]

The differentiating power criteria are:

0.00 – 0.20 : ugly

0.21 – 0.40 : Enough

0.41 – 0.70 : Good

0.71 – 1 : Very good

Problems with ugly categories are not used to capture data on student Islamic Religious Education learning outcomes.

RESULTS AND DISCUSSIONS

1. Description of data on the learning outcomes of Islamic Religious Education and characteristics taught with concept map learning strategies

Data on the learning outcomes of Islamic Religious Education and characters students who are taught with a concept map learning strategy are known to mean = 28; mode = 29.10; median = 28.14; variance = 13.96; standard deviation = 3.74; maximum score = 36; and minimum score = 20. An overview of the distribution of learning outcomes of Islamic Religious Education and ethics students who are

[10] Suharsimi Arikunto, *Dasar-Dasar Evaluasi Pendidikan*, (Jakarta; Bumi Aksara, 2002), H. 110

[11] *Ibid*, H. 115

taught with concept map learning strategies can be seen in the following Tabel 4.1:

Table 4.1. Description Dora the Results of Learning Islamic Education and Characteristics Taught with Learning Desight Concept Map

Interval Class	$f_{absolute}$	$f_{relative}$
20 – 22	2	5.55 5
23 – 25	8	22,22
26 – 28	9	25,00
29 – 31	10	27,78
32 – 34	6	16,67
35 – 37	1	2,78
Sum	36	100

Based on the data in Table 4.1 , it can be explained that with the mean of 28 being in the class intervals 26 - 28, there are 25.00% of students in the average class. A further 27.77% of students were below the grade average score and 47.23% of students were above the grade average score.

2. Description of data on the learning outcomes of Islamic Religious Education and Ethics taught with expository learning strategies

Data on the learning outcomes of Islamic Religious Education and ethics of students who are taught with expository learning strategies are known to mean = 2 6.95; mode = 26.90; median = 26.96; variance = 1 4.16; standard deviation = 3.76; maximum score = 34; and minimum score = 19.

To obtain an overview of the distribution of islamic religious education learning outcome scores and ethics students who are taught with expository learning strategies presented Table 4.2.

Table 4.2 Description Dor Learning Outcomes Islamic Religious Education and Ethics Taught with expository learning strategies

Interval Class	$f_{absolute}$	$f_{relative}$
19 – 21	3	7,89
22 – 24	7	18,42

25 – 27	11	28,95
28 – 30	10	26,32
31 – 33	6	15,79
34 – 36	1	2,63
Sum	38	100

Based on the data in Table 4.2, it can be explained that with a mean of 2 6.95 in the class intervals 25 - 27, there are 28.95% of students in the average class. A further 26.31% of students were below the grade average score and 44.74% of students were above the grade average score.

3. Description of data on learning outcomes of Islamic Religious Education and Ethics Students with a Squiensual Thinking Style

The learning outcome of Islamic Religious Education and Ethics for students with a squisitive thinking style diketahui mean = 29.61; mode = 30; median = 29.76; variance = 8.84; standard deviation = 2.97; maximum score = 36; and minimum score = 23. Distribution of scores of islamic religious education and ethics students with squirtial thinking style is presented in Table 4.3.

Table 4.3 Description of data on learning outcomes of Islamic Religious Education and Ethics Students with a Squiensual Thinking Style

Interval Class	$f_{absolute}$	$f_{relative}$
23 – 25	3	9,68
26 – 28	7	22,58
29 – 31	13	41,94
32 – 34	7	22,58
35 – 37	1	3,22
Sum	31	100

Based on the data in Table 4.3, it can be explained that with a mean of 29.61 in the class interval 29 - 31, there are 41.94% of students in the average grade score. A further 32.26% of students were below the grade average score and 25.80% of students were above the grade average score.

4. Description of Data on the results of Learning Education of Islamic Religion and Ethics With Random Thinking Style

Data on the results of learning Islamic Religious Education students with random thinking styles, namely mean = 2 6.07; mode = 25.62; median = 25.88; variance = 13.07; standard deviation = 3.61; maxsimum score = 34; and minimum score = 19. Distribution of scores of Islamic Religious Education and Ethics students with random thinking styles is presented in Table 4.4.

Table 4. 4 Description on Results of Learning Islamic Religious Education and Ethics Students with Random Thinking Styles

Interval Class	$f_{absolute}$	$f_{relative}$
19 – 21	4	9,30
22 – 24	11	25,58
25 – 27	14	32,56
28 – 30	9	20,93
31 – 33	4	9,30
34 - 36	1	2,33
Sum	43	100

Based on the data in Table 4.4, it can be explained that with a mean of 2 6.07 in class intervals 25 - 27, there are 32.56% of students who are on average grade scores. A further 34.88% of students were below the grade average score and 3were 2.56% of students above the grade average score.

5. Description of Data on The Learning Outcomes of Islamic Religious Education and Ethic Taught With A Concept Map Learning Strategy and Squirtial Thinking Style

Data on The Learning Outcomes of Islamic Religious Education and Ethic students who were taught with a concept map learning strategy and squirtial thinking style are known to mean = 32; mode = 30.70; median = 31.50; variance = 5.80; standard deviation = 2.41; maximum score = 36; and minimum score = 28. An overview of the distribution of scores of Islamic Religious Education and ethics students who are taught with concept map learning strategies and squirtial thinking styles are presented table 4.5.

Table 4.5 Description of Data on The Learning Outcomes of Islamic Religious Education and Ethic Taught With A Concept Map Learning Strategy and Squirtial Thinking Style

Interval Class	$f_{absolute}$	$f_{relative}$
28 – 29	2	14,29
30 – 31	5	35,71
32 – 33	3	21,43
34 – 35	3	21,43
36 - 37	1	7,14
Sum	14	100

Based on the data in Table 4.5, it can be explained that with a mean of 32 being in the class intervals 32 - 33, there are 21.43% of students who are on the average score of the class. A further 50.00% of students are below the average grade score and 28.57% of students are above the grade average score.

6. **Description of Data on the Learning Outcomes of Islamic Religious Education and Ethics of Students Taught With Concept Map Learning Strategies and Random Thinking Styles**

Data on the learning outcomes of Islamic Religious Education and ethics of students who are taught with a strategy of learning concept maps and random thinking styles are known to mean = 25; mode = 27.84; median = 2 7.50; variance = 7.06; standard deviation = 2.66; maximum score = 31; and minimum score = 20. To get an overview of the distribution of frequency of data on the results of data on the learning outcomes of Islamic Religious Education and ethics of students taught with concept map learning strategies and random thinking styles in Table 4.6.

Table 4.6 Description on the Learning Outcomes of Islamic Religious Education and Ethics of Students Taught Concept Map Learning Strategies and Random Thinking Styles

Interval Class	$f_{absolute}$	$f_{relative}$
20 – 21	1	4,55
22 – 23	4	18,18
24 – 25	5	22,73
26 – 27	5	22,73
28 – 29	6	27.26
30 – 31	1	4,55
Sum	22	100

Based on the data in Table 4.6, it can be explained that with a mean of 25 in the class interval 24 - 25 then there are 22.73% of students are on the average score of the class. A further 22.73% of students were below the grade average score and 54.54% of students were above the grade average score.

7. Description of data on the Learning Outcomes of Islamic Religious Education and Ethics Taught With Expository Learning Strategies And Skuensial Thinking Styles

Data on the Learning Outcomes of Islamic Religious Education and Ethics Taught With Expository Learning Strategies And Skuensial Thinking Styles are known to mean = 28; mode = 29; median = 28.25; variance = 7.88; standard deviation = 2.8 1; maximum score = 33; and minimum score = 23. Distribution of data on the learning outcomes of Islamic Religious Education and ethics students who are taught with expository learning strategies and squirtial thinking styles ispresented in Table 4.7.

Table 4.7 Description of data on the Learning Outcomes of Islamic Religious Education and Ethics Taught With Expository Learning Strategies And Skuensial Thinking Styles

Interval Class	$f_{absolute}$	$f_{relative}$
23 – 24	2	11,76
25 – 26	3	17,65
27 – 28	4	23.54
29 – 30	5	29,41
31 – 32	2	11,76
33 – 34	1	5,88
Sum	17	100

Based on the data in Table 4.7, it can be explained that with a mean of 28 being in the class interval 27 - 28, there are 23.54% of students who are on the average score of the class. A further 29.41% of students were below the grade average score and 52.95% of students were above the grade average score.

8. Description of data on the learning outcomes of Islamic Religious Education and Ethic Students who are taught with expository learning strategies and random thinking styles.

Data on the learning outcomes of Islamic Religious Education and Ethic Students who are taught with expository learning strategies and random thinking styles are known to mean = 26.14 ; mode = 25.25; median = 25.76; variance = 18.42; standard deviation = 4.29; maximum score = 34; and minimum score = 19. To get an idea of the distribution of the learning outcome scores of Islamic Religious Education and ethics students who are taught with expository learning strategies and random thinking styles are presented in Table 4.8.

Table 4.8. Description data on the learning outcomes of Islamic Religious Education and Ethic Students Who Are Taught With Expository Learning Strategies And Random Thinking Styles.

Interval Class	$f_{absolute}$	$f_{relative}$
19 – 21	3	14,29
22 – 24	5	23,81
25 – 27	6	28,57
28 – 30	3	14,29
31 – 33	3	14,29
34 – 36	1	4,75
Sum	21	100

Based on the data in Table 4.8, it can be explained that with a mean of 26.14 in the class intervals 25 - 27, there are 28.57% of students on average scores. A further 38.10% of students were below the grade average score and 33.33% of students were above the grade average score.

a. Normality Test

The normality test of data on the learning outcomes of Islamic Religious Education and ethics students is carried out with the Liliefors test. A summary of calculations with the Liliefors formula can be seen in Table[12] 4.9.

Table 4.9 Summary of Normality Test Analysis

No	Group	$L_{observation}$	L_{tabel}	Information
1	Islamic Religious Education Learning Outcomes Students	0,0717	0,1476	Usual

[12] margono, "Metode Kuantitatif," *Angewandte Chemie International Edition, 6(11), 951–952.*, 2018.

	Are Taught With Concept Map Learning Strategies			
2	Islamic Religious Education Learning Outcomes Students Are Taught With Expository Learning Strategies	0,0897	0,1437	Usual
3	Islamic Religious Education Learning Outcomes Students With Skuensial Thinking Style	0,0935	0,1591	Usual
4	Islamic Religious Education Learning Outcomes Students With Random Thinking Styles	0,1257	0,1519	Usual
5	Learning Outcomes of Islamic Religious Education Students Who Are Taught With Concept Map Learning Strategies And Skuensial Thinking Styles	0,2138	0,2270	Usual
6	Islamic Religious Education Learning Outcomes Students Are Taught With Concept Map Learning Strategies And Random Thinking Styles	0,0781	0,1832	Usual
7	Islamic Religious Education Learning Outcomes Students Are Taught With Expository Learning Strategies And Skuensial Thinking	0,0927	0,2060	Usual

	Styles			
8	Islamic Religious Education Learning Outcomes Students Are Taught With Expository Learning Strategies And Random Thinking Styles	0,1740	0,1860	Usual

Test the normality of data on the learning results of[13] Islamic Religious Education and ethics students taught dengan concept map learning strategy obtainedliliefors value calculated by 0.0717 while the value of Liliefors table with N = 36 and = 0.05 which is 0.1α476. Thus it is known that the value of Liliefors calculates less than the value of Liliefors table which is 0.0717 < 0.1476 then it is concluded that the data on the learning outcomes of Islamic Religious Education and ethics y ang is taught dengan learning strategy concept map normal distribution.

The normality test of data on the results of learning Islamic Religious Education and ethics students taught dengan expository strategy obtained liliefors value calculated at 0.0897 while the value of Liliefors table with N = 38 at = 0.05 is 0.1437. Thus it is known that the value of Liliefors calculates less than the value of Liliefors table which is 0.0α897 < 0.1437 then it is concluded that the data on the learning outcomes of Islamic Religious Education and ethics students who are taught expository learning strategies are distributed normally.

The normality test of data on the results of learning Islamic Religious Education and ethics students with a squirtial thinking style obtained a calculated Liliefors value of 0.0935 while the value of Liliefors table with N = 31 at = 0.05 which is 0.1591. Thus it is known that the value of Liliefors calculates less than the value of Liliefors table which is 0.0093 < 0.1591 then it is concluded that the data on the learning outcomes of αIslamic Religious Education and ethics students with the squistenial thinking style is distributed normally.

[13] Yulia Uni, "Meningkatkan Hasil Belajar," *Pembelajaran Prospektif*, 2021.

The normality test of data on the results of learning Islamic Religious Education and ethics students with random thinking styles obtained a calculated Liliefors score of 0.1257 while the value of Liliefors table with N = 43 at = 0.05 which is 0.1519. Thus it is known that the value of Liliefors calculates less than the value of Liliefors table which is 0.1257 < 0.1519 then it is concluded that the data on learning results αof Islamic Religious Education and ethics students with random thinking styles are distributed normally.

The normality of data on the learning outcomes of Islamic Religious Education and ethics students who were taught with concept map learning strategies and squirtial thinking styles obtained a calculated Liliefors value of 0.2138 while the value of Liliefors table with N = 14 at = 0.05 which is 0.2270. Thus it is known that the value of Liliefors calculates less than the value of Liliefors table which is 0.2138 < 0.2270 then it is concluded that the data on the learning outcomes αof Islamic Religious Education and ethics students who are taught with concept map learning strategies and squisitive thinking styles bedistributed normally.

The normality of data on the learning outcomes of Islamic Religious Education and ethics students who were taught with a concept map learning strategy and random thinking style obtained a calculated Liliefors value of 0.0781 while the value of Liliefors table with N = 22 at = 0.05 which is 0.1832. Thus it is known that the value of Liliefors calculates less than the value of Liliefors table which is 0.0781 < 0.1832 then it is concluded that the data on learning results of αIslamic Religious Education and ethics students who are taught with concept map learning strategies and random thinking styles are distributed normally.

The normality of data on the learning outcomes of Islamic Religious Education and ethics students who were taught with expository learning strategies and squirtial thinking styles obtained a calculated Liliefors value of 0.0927 while the value of Liliefors table with N = 17 at = 0.05 is 0.060. Thus it is known that the value of Liliefors calculates less than the value of Liliefors table which is 0.0927 < 0.2060 then it is concluded that the data αon learning results of Islamic Religious Education and ethics students who are taught with

expository learning strategies and squiensual thinking styles[14] are distributed normally.

The normality test of data on the learning outcomes of Islamic Religious Education and ethics students who were taught with expository strategies and random thinking styles obtained a calculated Liliefors value of 0.1740 while the value of Liliefors table with N = 21 at = 0.05 which is 0.1860. Thus it is known that the value of Liliefors calculates less than the value of table Liliefors which is 0.1740 < 0.1860 then it is concluded that the αdata on learning outcomes of Islamic Religious Education and ethics students who are taught with expository learning strategies with random thinking styles are distributed normally.

b. Homogeneity Test

The homogeneity test of variance for each group of data on the learning outcomes of Islamic Religious Education and ethics students from each treatment used the Fisher test and the Bartlett test with a significance level of α = 0.05. A summary of the calculation of the homogeneity test of the group of students taught with concept map learning strategies and expository learning strategies can be seen in Table 4. 10.

Table 4.10 Summary of Homogeneity Test Analysis of Student Groups Taught With Concept Map Learning Strategies and Expository Learning Strategies

Group Student	**F-count**	**F-T$_{abel}$**	**Information**
Islamic education religious ethics students Learning Outcomes Taught With Concept Map Learning Strategies and Expository Learning Strategies	1.01	1.74	Homogeneous

Test the homogeneity of data on the learning outcomes of Islamic Religious Education and ethics group of students who were

[14] Aulia Firdaus, Lulu Choirun Nisa, and Nadhifah Nadhifah, "Kemampuan Berpikir Kritis Siswa Pada Materi Barisan Dan Deret Berdasarkan Gaya Berpikir," *Kreano, Jurnal Matematika Kreatif-Inovatif*, 2019, https://doi.org/10.15294/kreano.v10i1.17822.

taught with concept map learning strategies and expositor learning strategies obtained a score of F_{count} of 1.01 while the value of F-table = 1.74 on = 0.05 with the numerator dk 3α5 and dk denominator 3 3. Thus it is known that the value of $F_{calculates}$ smaller than the value of $_{F\text{-}table}$ table which is 1.01 < 1.74 then it is concluded that the two sample groups have relatively the same variance (homogeneous).

A summary of the calculation of the homogeneity test of the student sample group with squiensual thinking style and random thinking style can be seen in Table 4. 11.

Table 4.11 Summary of The Homogeneity Test Analysis of Student Groups with Squisential Thinking Styles And Random Thinking Styles

Group Student	F-count	F-T$_{abel}$	Information
PAI and ethics students Learning Outcomes With Skuensial Thinking Style and Random Thinking Style	1.48	1.73	Homogeneous

The homogeneity of data on the learning outcomes of Islamic Religious Education and ethics group of students with squirtial thinking style and random thinking style obtained a score of F^{15}_{count} of 1.48 while the value of $_{F\text{-}table}$ = 1.73 at = 0.05 with dk numerator 30 and dk denominator 42. αThus it is known that the value of $F_{calculates}$ smaller than the value of $_{F\text{-}table}$ table which is 1.48 < 1.73 then it is concluded that the two sample groups have relatively the same (homogeneous) variance.

A summary of the calculation of the calculation of the homogeneity of learning strategies and thinking styles can be seen in Table 4. 12.

Table 4.12 Summary of Test Analysis of Homogeneity of Learning Strategies and Thinking Styles

Sample Group	χ^2count	χ^2tabel	Information

[15] Mira Permatasari, "Pengaruh Gaya Berpikir, Integritas Dan Usia Pada Perilaku Kerja Yang Kontraproduktif," *Jurnal Psikologi Ulayat*, 2020, https://doi.org/10.24854/jpu5.

Learning Strategies and Thinking Styles	7,76	7.81	Homogeneous

The homogeneity test between learning strategies and thinking styles is used bartlett formula. Based on the calculation of the formula Bartlett obtained the priceχ^{2} calculate = 7.76 while the priceχ^{2} tables (= 0.05, 3) = 7.81. αBasedon the data, it can be seen that the priceχ^{2} counts < χ^2 tables. Thus it can be concluded that the data on the results of learning results of Islamic Religious Education comes from homogeneous variations.

CONCLUSIONS

The research conducted there are several conclusions, there is an interaction between learningstrategies and student thinking styles that provide differences in influence on the learning outcomes of Islamic Religious Education and ethics students. The difference in influence is: (a) the learning outcomes of Islamic Religious Education and ethics students who are taught with a higher concept map learning strategy than the learning outcomes of Islamic Religious Education and ethics students are taught with expository learning strategies, (b) the learning outcomes of Islamic Religious Education and ethics students with a higher scurrental thinking style than students with random thinking styles, (c) the learning outcomes of Islamic Religious Education and ethics students who are taught with concept map learning strategies and skuensial thinking styles are higher than students with random thinking styles, (d) learning outcomes of Islamic Religious Education and ethics students with who are taught with expository learning strategies with a higher squirtial thinking style than students with random thinking styles, (e) the learning outcomes of Islamic Religious Education and ethics students who are taught with concept map learning strategies and squirtial thinking styles are higher than the learning outcomes of Islamic Religious Education and ethics students who are taught with expository learning strategies and squeal thinking styles, and (6) the learning outcomes of Islamic Religious

Education and ethics students who are taught with concept map learning strategies and random thinking styles are lower than the learning outcomes of Islamic Religious Education and ethics students who are taught with expository learning strategies and random thinking styles.

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