Implementation of Istiqraiyah Method Through Mind Map in Shorof Learning

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ARTICLE INFO	ABSTRACT
	This study aimed to describe the steps of applying istiqraiyah method through mind maps in Shorof learning and to find out students' interest in applying istiqraiyah method through mind maps in Shorof learning in Maulana Malik Ibrahim Islamic State University of Malang. This study used mix methods; descriptive qualitative, it describes the steps of applying istiqraiyah method through mind maps in Shorof learning and quantitative, it is to answer students' influence and interest in applying istiqraiyah method through mind maps in Shorof learning. Data collection techniques used interviews, observation, and questionnaires. Quantitative data analysis used the Likert theory to calculate the value of student interest taken from the questionnaire. The results of the study showed that the first step in applying istiqraiyah method through mind maps in Shorof learning is to provide several examples of sentences from al-fi'lul lazim and al-fi'lul muta'adias insights and descriptions, then compiled in a mind map in the form of a definition format, definitions, signs, meanings, wazan, patterns, and ways of changing the usual al-fi'lul lazim to al-fi'lul muta'adi which also begins with various examples. Istiqraiyah method through mind maps in Shorof learning increases the average pre-test and post-test scores of 30.83, which results in a value of 0.73 based on the Gain test, so it is in the high category. As for students' interest in applying istiqraiyah method through mind maps in Shorof learning, it has a presentation index of 73.2% and included in the strong category.
Keyword	Istiqraiyah Method; Mind Map; Shorof Learning

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مستخلص البحث

تهدف هذه الدراسة إلى وصف خطوات تطبيق الطريقة الاستقرائية من خلال خريطة المفاهيم في تعليم الصرف ومعرفة تأثيرها وميول الطلبة في جامعة مولانا مالك إبراهيم الإسلامية الحكومية مالانج. تستخدم هذه الدراسة طريقة مختلطة. وصفية لوصف خطوات استخدام الطريقة الاستقرائية من خلال خريطة المفاهيم في تعليم الصرف وكمية للإجابة على تأثيرها وميول الطلبة باستخدام الطريقة الاستقرائية من خلال خريطة المفاهيم في تعليم الصرف. تقنيات جمع البيانات من خلال المقابلات والملاحظة وتوزيع الاستبيانات على الطلاب. يستخدم تحليل البيانات الكمية نظرية ليكرت لحساب قيمة اهتمام الطالب المأخوذة من الاستبيان. أظهرت نتائج الدراسة أن الخطوة الأولى في استخدام الطريقة الاستقرائية من خلال خريطة المفاهيم في تعليم الصرف هي تقديم عدة أمثلة لجمل من اصطلاح الفعل اللازم والفعل المتعدي وأوصاف وهي: ثم جمعت في خريطة المفاهيم في شكل تعريف، وتعريفات، وعلامات، ومعاني وأوزان، وعلامات، وأنماط، وطرق تغيير الفعل اللازم والفعل المتعدي الذي يبدأ أيضًا بأمثلة مختلفة. الطريقة الاستقرائية من خلال الخرائط المفاهيم في تعليم الصرف لها تأثير في زيادة متوسط درجات الاختبار القبلي والبعدي 30.83 والتي تنتج قيمة 0.73 بناءً على اختبار الكسب بحيث تكون في فئة عالية. أما بالنسبة لاهتمام الطلاب بتطبيق طريقة الاستقرائية من خلال الخرائط المفاهيم في تعلم الصرف، فقد بلغ مؤشر عرضه 73.2٪، وهو مدرج في الفئة القوية.

	كلمات أساسية
الطريقة الاستقرائية؛ خريطة المفاهيم؛ تعليم الصرف	

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INTRODUCTION

The science of *Shorof*, which functions to find out the basic word forms of a sentence, is fundamental in understanding a text in Arabic. However, the problem is that few students have difficulty in learning *Shorof*. Among the reasons why the material is considered difficult and boring by most Arabic students (Muassomah & Ma'rifatul Munjiah, 2019). The boredom and difficulty are caused by the monotony of the Arabic learning method applied by the teacher (Rasmuin Rasmuin & Dzurrotun Nafisah, 2019). In addition, because of the lack of precise use of appropriate learning methods (Siti Durotun Naseha And Muassomah Muassomah, 2018). Besides that, there is also a demand to memorize the rules of *Shorof* science, which seem long and saturate the way it is delivered (Sa'adah, 2019). Based on this reality, teachers must be able to determine innovative learning methods by adjusting learning models to students' interests, talents, needs, and learning styles (Nurdyansyah & Fahyuni, 2016).

One method currently widely applied by educators is *istiqraiyah* method and the mind mapping method. In Septian and Jeinne's research, the ability of students to use *istiqraiyah* reasoning was only in the moderate category (Drupadi & Mumu, 2018). In Isnainiyah and Syihabudin's research, *istiqraiyah* method was applied to determine its effectiveness (Isnainiyah & Syibahuddin, 2021). In Nafisah and Rasmuin's research, the mind map method is applied in *tarkib* learning through class action research which aims to determine the effect. (Rasmuin And Nafisah, 2019). Based on several studies, concept maps provide an effective learning technique when applied to written materials (Keleş, 2012). The learning process using a mind map can increase students' motivation and improve students' learning outcomes (Brett D. Jones et al., 2012). In Nasirudin's research, the mind map method was used experimentally to know the significant learning outcomes of *nahwu* (Endah And Nashirudin 2019). From some literature, the use of the two methods is carried out separately so that the results are not optimal, and the aim was to determine the effect of their use. From the literature review, researchers will combine the two methods in learning *Shorof*.

A good learning process is often interpreted by involving students actively, with various methods, strategies, approaches, and even models chosen by the teacher to lead them to achieve the learning objectives. *Istiqraiyah* reasoning is a form of reasoning in which general conclusions are drawn based on specific data and information (Haryono & Tanujaya, 2018). *Istiqraiyah* learning refers to abstracting and consolidating conceptual knowledge (e. g., gezneric facts, rules, principles, or categories) from studying exemplars (Richter, et al., 2018). This method is known to improve students' achievement because students can construct the required knowledge from the information given. The process of induction, namely moving from the particular to the general, is a natural thought

process (Mokmin & Masood, 2015). Regarding learning activities in class, istiqraiyah method is applied in steps, namely introducing the content, connecting the rules with previous content or material, then concluding the rules and applying the rules. Teachers can explore these steps according to learning needs (ولي أحمد جابر, 1425).

A mind map is an outline in which the significant categories radiate from a central image, and lesser categories are portrayed as branches of larger branches (Buran & Filyukov, 2015). Salamah defines a mind map as a diagram that expresses the relationship between concepts in a topic, and is also a schematic image to illustrate a set of meanings combined within a suggestion framework (عادل سلامة, 2009). A mind map is a learning technique in which a non-linear approach is used for learning, which makes the learner examine and explore different concepts using various relationships that can be linked from a central topic to peripheral branches (Rezapour-Nasrabad, 2019). Aside from being a tool for measuring logical thinking, mind maps can also be used to improve students' conceptual understanding (Swestyani et al., 2018). The mind Mapping Technique prepares the mind so that information can be used logically and imaginatively to make an image in the brain (Nikhilkumar D. Parikh, 2016). The mind map has three components, namely 1) a central description that reflects the topic, 2) the main branch that describes the main theme and detail branches, and 3) keywords in each branch (A.G.Ganiev et al., 2021). As a notetaking technique, the mind map allows individuals to "organize facts and thoughts" in a map format containing a "central image, main themes radiating from the central image, branches with key images and keywords, plus branches forming a connected nodal structure." In addition, the mind map helps students assimilate new information, think and develop their conceptual schema (Tee et al., 2014). By adding more pictures and building second, third, and fourth-level idea steps, connection points, codes, and schemes, the mind mapper completes the association network, demonstrating the creative nature of brain associations (Polat et al., 2017).

The different backgrounds of each students in the Department of Arabic Language Education of Maulana Malik Ibrahim Islamic State University of Malang is a tough challenge for each lecturer in delivering material. The reason is that some students are graduated from Islamic boarding schools who already known the *Shorof*, which is more weighty than other students graduated from general school who only know *Shorof* knowledge form of its cover. From these problems, researchers will try to combine *istiqraiyah* and mind mapping methods, which will be implemented in *Shorof* learning. So, from this background, the purpose of this study was to describe the process of applying *istiqraiyah* method through mind maps in *Shorof* learning and to find out the influence and interest of students in

istiqraiyah method using the concept of concept maps in *Shorof* learning in the Arabic language education department of Maulana Malik Ibrahim Islamic State University of Malang.

The application of *istiqraiyah* method through concept maps is considered important by the article as far as what the author knows that the learning contained in *Shorof* is detailed regarding the morphological aspects needed by students as a complement and reinforcement in studying various sciences related to Arabic so that a strategy or the right method and make it easier for students to understand various theories and rules in the science of *Shorof*. Since the researchers is interested in this problem, then title of this research is applying *istiqraiyah* method through mind maps in *Shorof* learning in the Arabic language education department of Maulana Malik Ibrahim Islamic State University of Malang.

METHOD

This study used a mixed method approach, namely a descriptive qualitative approach and a quantitative approach. This research method combined quantitative research and qualitative research together to obtain more comprehensive, valid, reliable and objective data (Sugiyono, 2012). A qualitative approach describes the steps for implementing *istiqraiyah* method through a mind map in *Shorof* learning. In contrast, a quantitative approach is used to answer students' influence and interest in applying *istiqraiyah* method through a mind map in *Shorof* learning. The quantitative approach uses a pre-experimental design with a one-group pretest-posttest design. Thus the results of the treatment can be known more accurately because they can be compared with the conditions before being given treatment (Sugiyono, 2014). The sample in this study were students majoring in Arabic Language Education, Maulana Malik Ibrahim Islamic State University, Malang, totaling 20 students. The following is a table of one group pre-test post-test research design:

Table 1. table of one group pre-test post-tes research design

Pre-test	Treatment	Post-test
O_1	X	O_2

Data collection techniques used through observations, tests, and distributing questionnaires to students. The research instruments used by researchers were pre-test and post-test questions and questionnaires which were distributed to all students. Observations in the research were carried out by

observing the process of delivering material. The test was carried out through a pre-test and post-test with 20 multiple-choice questions. The distribution of questionnaires to students was given after completing the process of delivering material to find out students' interests in applying *istiqraiyah* method through mind maps in *Shorof* learning. Quantitative data analysis of student scores uses the Gain test to determine how much the data has increased from the pre-test and post-test results for knowing students' interest used a questionnaire which was analyzed using a Likert scale. According to Sugiyono the Likert scale measures attitudes, opinions, and perceptions of a person or group of people about social phenomena (Sugiyono, 2014). Data processing indicators are classified according to the interpretation scale of the percentage of interest in learning according to Riduwan and Sunarto, presented in the form of a table of interpretation scale calculation scores in the form of percentages (Sunarto & Riduwan, 2013). The table 2 a table of interpretation scales using an interval scale:

Table 2. Interpretation Scale

Presentation	Category
0-20%	Very Week
21-40%	Week
41-60%	Enough
61-80%	Strong
81-100%	Very Strong

RESULTS & DISCUSSION

Application of *istiqraiyah* Method Through the Mind Map in *Shorof* Learning

The application of *istiqraiyah* method through mind maps in *Shorof* learning was carried out by researchers in the first semester in the Arabic language education department of Maulana Malik Ibrahim Islamic State University of Malang for the 2022/2023 academic year. The researchers took one of the classes with 20 students, which was held face-to-face for 3x40 minutes. The material taught is about *al-fi'lul lazim* and *al-fi'lul muta'adi* by the curriculum material contained in the semester learning plan (RPS). The process of applying *istiqraiyah* method through mind maps in *Shorof* learning is divided into three steps, namely opening activities, core activities, and evaluation activities.

Opening Activities

The first step in the opening activity was a greeting from the teacher, followed by questioning about students' condition and praying together, in order to cultivating affective traits in the form of faith in God Almighty, this activity also encourages students' self-suggestion so that they are more-prepared and ready to learn. The teacher encourages students to be enthusiastic and prepare themselves to take part in learning because the willingness of students to learn determines the success of the learning process. In addition, the teacher's motivation will assume that *Shorof* 's material is easy to learn so it will generate students' participation and activity to participate in ongoing learning activities.

The second step is evaluating last meeting material. Evaluation is carried out briefly in the form of definitions and examples to recall the last material. This evaluation is carried out because the material is related to the previous material. Next, the teacher opens an overview of the material to be studied. In this phase, the teacher does not explain the material but only encourages and increases students' curiosity about the material.

The third step is to explain the learning objectives, methods, the definitions and steps of *istiqraiyah* method through mind mapping. Learning aims is to deliver material with the themes of *al-fi'lul lazim* and *al-fi'lul muta'adi*. The explanation of the method, the definition and steps of *istiqraiyah* method through mind map is so that students understand the learning process that will be carried out so students can play an active role in participating in the learning process.

Core activities

The core activity is applying *istiqraiyah* method through concept maps in *Shorof* learning. In this process, the teacher combines two concepts of learning methods: *istiqraiyah* method and the mind map method (concept map). In simple terms, the learning process using *istiqraiyah* method through concept maps is learning material that begins with examples which are then drawn conclusions in the form of formulas or *Shorof* rules arranged using concept maps. Researchers will explain in more detail.

The first step in the core activity is teacher gives examples of sentence structure about *al-fi'lul lazim* and *al-fi'lul muta'adi*. For example, the teacher gives five sentences for each type. The teacher asks 2 students to read the 10 sample sentences. From all the examples, students discuss the basic differences between *al-fi'lul lazim* and *al-fi'lul muta'adi* directed by teacher. From giving examples in the beginning of learning process, students are expected to be able to open their horizons and insight into the general description of *al-fi'lul lazim* and *al-fi'lul muta'adi*.

The second step is to draw *Shorof* rules from observations, comparisons, and discussions of examples. In drawing *Shorof* principals, teacher and students arrange them using a mind mapping format (concept map). Exploring the rules begins with discussing *al-fi'lul lazim* regarding its definitions, signs, meanings, and *wazan*. The definition of *al-fi'lul lazim* taken based on the conclusions presented by students from their understanding of the examples given. The sign of *al-fi'lul lazim* inferred from examples of sentences in which the sign can be included in the *al-fi'lul lazim*, which is a differentiator from *al-fi'lul muta'adi*. Likewise, in drawing the rules of meaning contained in *al-fi'lul lazim* through different sentence examples by adjusting the meaning. Concluding the rules of the six *wazan* in the *al-fi'lul lazim* through different sentence examples by adjusting the *wazan*.

The next is about *al-fi'lul muta'adi*. There is no different way from *al-fi'lul lazim* discussing; definitions, signs, patterns, and ways of changing al-fi'lul conventional into *al -fi-lul muta'adi*. All exploration of these rules begins with concluding the examples. Next, students write down a concept map (mind map) of what they have learned, namely the principles of *al-fi'lul lazim* and *al-fi'lul muta'adi*. The description of writing *Shorof* rules based on istiqraiyah method through a mind map is as follows:

Table 3. Examples of the *al-fi'lul ladzim* and *al-fi'lul muta'adi* sentences

الأمثلة	
الفعل المتعدّي	الفعل اللازم
ضرب زيد السارق	شجع المسافر
أحضر الطبيب الدواء	طال الرجل
كرّم الطالب الأستاذ	زرق السماء
رغب المؤمن في العبادة	طهر الماء
جلس المسافر تحت الشجرة	كرم النبي

Table 3 shows the examples discussed and explored with students as a trigger for students' insights and descriptions of *al-fi'lul lazim* and *al-fi'lul muta'adi*. Furthermore, exploring the principles of *Shorof* in the form of definitions, signs, meanings, *wazan*, patterns, and ways of changing ordinary *al-fi-lul* become *al-fi'lul muta'adi*.
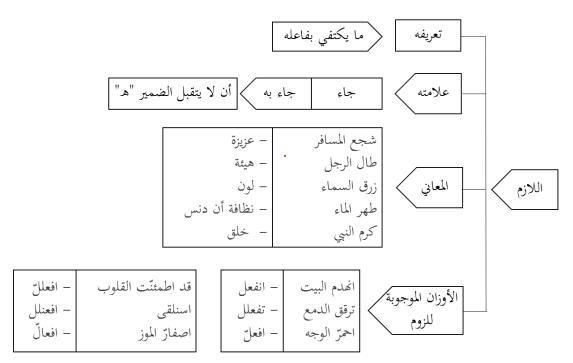
تعريفه ← ما يكتفي بفاعله

علامته ← جاء | جاء به ← أن لا يتقبل الضمير "هـ"

اللازم ← المعاني

شجع المسافر	– عزيزة
طال الرجل	– هيئة
زرق السماء	– لون
طهر الماء	– نظافة أن دنس
كرم النبي	– خلق

الأوزان الموجوبة للزوم

انهدم البيت	– انفعل	قد اطمئنّت القلوب	– افعللّ
ترقق الدمع	– تفعلل	اسنلقى	– افعنلل
احمرّ الوجه	– افعلّ	اصفارّ الموز	– افعالّ

Figure 1. Common *al-fi'lul* Mind Map format

تعريفه ← ما لا يكتفي إلا بفاعله ومفعول به معا

علامته ← حرّم | حرّمه ← أن يتقبل الضمير "هـ"

المتعدّى ← الأساليب

ضرب زيد السارق	• بنفسه
أحضر الطبيب الدواء	• بزيادة الهمزة في أوله
كرّم الطالب الأستاذ	• بتضعيف عين فعله
رغب المؤمن في العبادة	• بواسطة حرف الجرّ
جلس المسافر تحت الشجرة	• بواسطة الظرف

تغيير اللازم إلى المتعدي

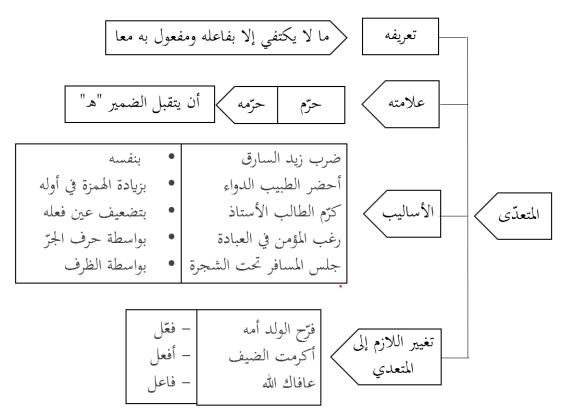|	
فرّح الولد أمه	– فعّل
أكرمت الضيف	– أفعل
عافاك الله	– فاعل

Figure 2. Common *al-fi'lul* Mind Map format

Figure 1 and Figure 2 show the results of the mind map arrangement from the discussion of al-fi-lul conventional and *al-fi'lul muta'adi*. The mind map compiled is a type of tree diagram. The main ideas are made in squares, while some other words are written on the connecting lines. The lines in the concept map show the relationships between the ideas. The words written on the lines give the relationship between the concepts.

Closing Activities

Closing activities in implementing *istiqraiyah* method through mind maps in *Shorof* learning are material evaluation, mind map evaluation, and data collection of students' interests in applying *istiqraiyah* method through mind maps in *Shorof* learning, which are carried out for 40 minutes.

The first step is evaluating learning materials about *al-fi'lul lazim* and *al-fi'lul muta'adi*. The material evaluation process is an example of composing the sentence *al-fi'lul lazim* used by some students on the blackboard, which is then analyzed together about the signs, meanings, and *wazan*. Then some of the other students changed the example of the *al-fi'lul lazim* sentence to become *al-fi'lul muta'adi*. The change from *al-fi'lul lazim* to *al-fi'lul muta'adi* is analyzed by students regarding signs, patterns, and ways of changing. With this evaluation process, students are expected to be able to master all the *Shorof* rules about *al-fi'lul lazim* and *al-fi'lul muta'adi*. The second step is to collect data on students' interest in applying *istiqraiyah* method through mind maps in *Shorof* learning. The interest data collection uses a questionnaire instrument. The results and discussion of the questionnaire are explained in the second results and discussion. The learning stages using this method are in line with the research, namely the stages that begin with an introduction in presenting the content, connecting the rules with the previous content or material, then concluding the rules and applying the rules (Al farabi, 2023).

The effect of applying *istiqraiyah* method through mind maps in *shorof* learning on student abilities

Students' initial abilities are students' data taken before the researchers treats students. It is intended that the researchers can find out each students' ability to receive the information conveyed by the researchers. The questions used in measuring students' abilities are in the form of 20 Multiple choice questions. Based on the analysis of pre-test data carried out with a total of 18 students showed that there is no student who can get a value of 100 as the maximum score. The highest score is 80, which was obtained by two students with a percentage of 11.11%, the score is 75, which was obtained by one student

with a percentage of 5.55%, the value of 60, which was obtained by six students with a percentage of 33.33%, and the lowest score is 50 which is obtained by nine students with a percentage of 50%, this can be seen in the graph below.

Figure 1. Student Pre-test Scores

The final score of students taken when the researchers have given treatment to students in the class. After giving the post-test, there was a change in the students' reading ability. The change is in the form of an increase in reading ability obtained in post-test compared to the pre-test scores. Based on the post-test data analysis of 18 students, 5 students were able to obtain a score of 95 as the maximum score with a percentage of 22.77%. A score of 90 was obtained by 6 students with a percentage of 33.33%, a score of 85 was obtained by 5 students with 22.77%, and the lowest score was 80 obtained by 2 students with a percentage of 11.11%, this can be seen in the graph below.
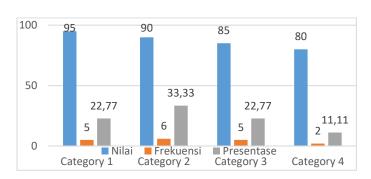

Figure 2. Students' Post-test Scores

The pre-test and post-test results show an increase in the average score after the treatment of the application of *istiqraiyah* method through mind maps in *Shorof* learning. The average score pre-test and post-test increased by 30.83, with an average pre-test of 58.05 to 88.88 in the average post-test. This can be seen in the graph below.
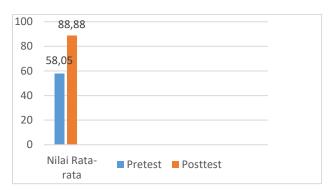
Figure 3. Comparison of Pre-test and Post-test Scores

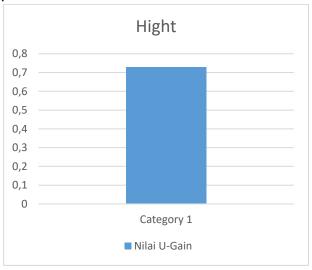Meanwhile, a value of 0.73 was obtained based on the gain test. This can be seen in the graph below:

Figure 4. Gain Test Value

Based on the result in graph 3, it shows that the increase in the average research sample including in the high criteria. This shows that applying istiqraiyah method through mind maps in *Shorof* learning in the Arabic language education department of Maulana Malik Ibrahim Islamic State University of Malang has a strong effect.

This study used a questionnaire to obtain data about students' interest in applying *istiqraiyah* method through mind maps in *Shorof* learning. The questionnaire contents are indicators or questions regarding students' interest in applying *istiqraiyah* method through mind maps in *Shorof* learning. The instrument contains of 5 indicators or question, with 18 students as respondents. The indicators of student interest in learning are based on Djamarah's opinion, namely (1) feeling happy, (2) student interest, (3) student involvement, (4) diligent and enthusiastic about doing assignments, and (5) diligent and disciplined in learning. The following is the percentage of interest analysis of 18

students of first semester of Arabic education department towards applying *istiqraiyah* method through mind maps in *Shorof* learning.

The overall calculation results are presented in the interpretation table of interest in learning as follows:

Table 4. Score

Indicator	Score (TxPn)	Total Score	Index % (Total/YxX)	Category
1	74			
2	74			
3	71	366	73,2	Strong
4	75			
5	72			

Based on the questionnaire assessment, the results of students' interest is 73.2%. This shows that Arabic education department students of Maulana Malik Ibrahim Islamic state of Malang are interested in applying *istiqraiyah* method through mind maps in learning *Shorof* with a strong category.

CONCLUSIONS

The results showed that applying *istiqraiyah* method through mind maps in *Shorof* learning in the Arabic language education department at the Maulana Malik Ibrahim Islamic State University of Malang is divided into three steps: opening activities, core activities, and evaluation activities. The core activity is the most fundamental because it is the process of delivering material. The first step is to provide some examples of sentences from *al-fi'lul lazim* and *al-fi'lul muta'adi* as insights and descriptions. From these examples, a mind map was compiled in a definition format, definitions, signs, meanings, *wazan*, signs, patterns, and ways of changing *al-fi-lul* become *al-fi'lul muta'adi* which also begins with various examples. *Istiqraiyah* method through mind maps in student *Shorof* learning affects increasing the average score of the pre-test and post-test scores of 30.83, which produces a value of 0.73 based on the Gain test so that it is in the high category. As for students' interest in applying *istiqraiyah* method through mind maps in *Shorof* learning, it has a presentation index of 73.2%. This showed that students majoring in Arabic language education at the Maulana Malik Ibrahim Islamic State University of Malang are interested in applying *istiqraiyah* method through mind maps in *Shorof* learning with a strong category.

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