Information Literacy Analysis of Students' Affective Cognitive Ability in Online Learning in Madrasah Tsanawiyah Negeri 2 Malang City

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Abstract. Any efforts have been made by MTsN 2 Malang so that their students have affective and cognitive abilities in online learning, but they have not yet fully obtained maximum results, there are still many students whose cognitive and affective aspects are still low. For this reason, this study seeks to find a way to analyze information literacy for students at MTsN 2 Malang City.The method used is action research which is a type of qualitative research. The sampling technique used is purposive sampling. The results of the research in cycle 1 with several actions/observations, written tests, it was found that there were 17 out of 25 students who had information literacy analysis scores still below the value of 75 (below the KKM) so that cycle 2 actions were needed, in cycle 2 with various actions and accumulated scores. an increase in the ability of students was obtained as many as 18 students with affective and effective abilities above the KKM score of 75. This means that this activity was completed with a percentage of more than 50% of the number of students.

Keywords: Information Literacy; Affective Aspects; Cognitive Aspects; Online Learning

1 Introduction

1.1 Research Background

The improvement of education quality in school is in line with the development of an increasingly advanced era, the school continously brands various efforts so that the students are able to have achivements. One of the rudimentary efforts carried out by the school in improving the achivement is growing and increasing the reading interest of the students. There are many dilemmas faced by the school in cultivating and snowballing the students' interest in reading due to each students has different ability. Therefore, various efforts have been completed through the school literacy that is promoted by the government.Nevertheless, literacy does not necessarily succeed in growing and increasing the reading interest ability, it takes an extended process to eradicate low literacy. The low literacy ability in Indonesia is

produced by several things such as the use of technology which is still not sensible. A lot of Indonesian people are still amazed with the sophistication of information technology on this day, but theytend to use and enjoy it with other things such as game, infotainment, social media, music, and photography than reading. Whereas, the reading activitiesalso can be done through gadgets such as e-journal and e-book technology. However, the situation in the remote areas is different. The lackof access to books, library, and an adequate internet network are still the problems.

Another activity such as watching television or videos from various media become something that cannot be abandoned as if it is an essential thing. As the result, the existence of reading activities is starting to decompose. According to BPS data, the time that is spent for watching television in each day is 300 minutes. Besides, both family and school environments are infrequent to introduce reading culture from an early age. From the results carried out by the Program for International Student Assessment (PISA) the literacy condition in Indonesia in 2015 was still ranked 62 out of 72 countries, meaning that Indonesia's position is in the 10 countries that have the lowest ranking. The interesting thing is from the three literacy aspects. namely reading, math skills, and science skills increased from the previous year, namely 2012. "Our literacy level is still low, as can be seen from our PISA scores which are still below the OECD average), in 2016 the literacy condition of students in terms of reading ability was 46.83% belongs to the less category[1].

In response to this the Indonesian government is trying to create a program, namely a government program that is often carried out by schools is the school literacy movement program or also the information literacy movement. stated and heard. Understanding literacy is very heterogeneous and of course has a balance of scientific development. The concept of information literacy, if traced, comes from the United States, which has information related to explanations which are essentially used in response to the development of information which changes rapidly every second so that it is not controlled in terms of quantity and quality. This understanding has led to different opinions from information leaders, especially differences of opinion in the use of the term information literacy. And the term information literacy is not entirely acceptable, Carbo defines the term information media more, while Goestch and Kaufman in Sulistyo-Basuki use the term information competency for the term information literacy[2] So to facilitate a deeper understanding of information literacy, Sulistyo-Basuki uses the language/terms of Information literacy.

The state of Islamic Junior high throughout Malang city as a religious-based school and under the auspices of the religious affairs ministry apparently strive to improve the cognitive and affective aspects of students through the school literacy movement program. Nevertheless, according to the information obtained, the literacy movement which is developed by the principal and teachers has not fully get the maximum results, there are still many students in low cognitive and affective aspects. For this reason, the author will conduct a study on student of islamic junior state high school 2 Malang City, what extent is the impact of literacy through applying various literacy components that are applied to the MTsN students of the school, whether there are sugnificant results toward reading interest from the literacy activity results.

1.2 Research Problem

The research question of this study is "How is the analysis of "information literacy" toward the students cognitive and affective aspects in online learning at Islamic Senior State High School 2 of Malang City?"

2 Review of Related Literature

2.1 The Concept and Definition of Information Literacy

Clay and Ferguson[3] described that the information literacy components consist of early literacy, basic literacy, library literacy, media literacy, technological literacy, and visual literacy. In the context of Indonesia, early literacy is needed as the basic for acquiring literacy in the next stage. The literacy components are explained as follows: a) Early Literacy, is the ability to listen, understand spoken language, and communicate through pictures and verbally shaped by the experience of interacting with the social environment at home. The experience of students in communicating in their mother language is the foundation for the development of basic literacy. b) Basic Literacy, is the capability to listen, speak, read, write, and count (*counting*) related to the analytical ability to calculate (*calculating*), perceive information (*perceiving*), communicate, and draw information (*drawing*) based on personal understanding and conclusion. c) Library Literacy, among others, providiong an understanding of how to distinguish fiction and non-fiction reading, utilize reference and periodical collections, understand the Dewey Decimal System as a knowledge classification that makes it easy in using library, comprehend the use of catalog and indexing, as well as having knowledge in understanding information while completing a paper, research, job, or problem solving. d) Literacy Media, is the ability to know various different forms of media, such as print media, electronic media (radio and television media), digital media (internet media), and understand their intended use. e) Technology Literacy, is the competence of understanding the completeness which follows technology such as hardware, software, as well as the ethics and etiquette in using technology. Next, the ability to understand technology for printing, presenting, and accessing the internet. In practice, there is also an understanding of using computers (computer literacy), which includes turning on and off computers, storing and managing data, as well as operating software programs. In line with the flood of informationdue to current technological development, a decent understanding is needed in managing the information required by the community. f) Visual Literacy, is an advanced understanding between media literacy and technological literacy which develops learning abilities and needs by utilizing visual and audio-visual materials critically and dignified. The interpretation of overpowering visual material, whether in print, auditory, or digital (a combination the three of them is called multimodal text), it needs to be managed properly. However, there are a lot of manipulation and entertainment inside it that really needs to be filtered based on ethics and propriety. According to Anunobi &Udem [4] it is carried out in several stages and these steps are implemented in stages.

Stage 1: getting used to fun reading activity in the school ecosystem. This habituation aims to foster interest in reading subject and activity within the school community. the growth of reading interest is fundamental for the development of students' literacy skills.

Stage 2: the development of reading interest in order to improve literacy skill. The literacy skill activity in this step aims to develop the ability to understand reading subject and relate it to personal experience, critical thinking, and process communication skill creatively through responding activity to enrichment reading.

Stage 3: the implementation of literacy-based learning. Literacy activity at the learning stage aim to develop the ability of understanding texts and relating them to personal experiences, critical thinking, and processing communication skills creatively through activities responding to texts of enrichment reading books and textbooks. In this stage there are claims which academic in nature (related to learning subjects). Reading activity at this

stage are needs to support the implementation of the 2013 curriculum which requires students to read non-textual textbooks which can be in the form of books on general knowledge, hobbies, special interests, multimodal texts, and can also be linked to certain subject as many as six books for elementary school students. 12 books for junior high school students, and 18 books for senior high school / vocational high school students. The reading activity report book at this learning stage is provided by the homeroom teacher.

2.2 Cognitive Ability

Alluding to Lorin[5] "Cognitive ability is the ability to think in hierarchical manner consisting of knowledge, understanding, application, analysis, synthesis, and evaluation". At the level of knowledge, students answer the question based on just memorizing. Meanwhile, at the understanding level the students are required to state the problem in their own words, give an example of a concept or principle.

2.3 Affective Ability

Based on Andersen[5], "Attitude is a tendency to express like or dislike towards an object". Attitude can be formed through observing and imitating something positive, the through reinforcement as well as receiving verbal information. The change of attitude can be observed in the learning process, the goal to be achieved, firmness, and consistency towards something. Attitude assessment is an assessment which carried out to determine student attitudes towards subjects, learning conditions, educators, and so on.

3 Methodology

This study uses action research which is categorized as qualitative research. Suyanto[6] declared that action research is a form of reflective research by doing certain actions to repair and improve learning practices in the classroom professionally. The research sample of this study were the students of MTsN 2 of Malang City. Purposive sampling is applied as the sampling technique, as follows, sampling based on the purpose of the study. The aim of this study is to identify the literacy effect which is applied towards the development of reading interest in students of Islamic senior state high school 2 of Malang City. The data analysis in thi research was done using the flow model data analysis technique development by Miles and Huberman[7] which consists of three stages, as follows (1) data reduction, (2) data presentation, and (3) drawing conclusion or verification.
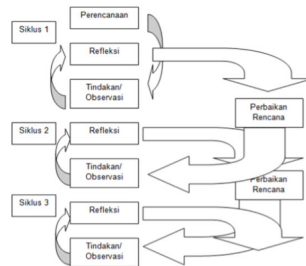

Fig. 1. Model of Kemmis and Mc Taggart [8] (1986)

Cycle 1 – Planning – reflection – action/observation – plan improvement
Cycle 2 – Reflection – action/observation – plan improvement
Cycle 3 – Reflection –action/observation

4 Results and Disscussions

Information literacy analysis of students' affective cognitive ability in online learning at Islamic Senior State High School 2 of Malang City which is conducted by students, aims to determine the cognitive and affective abilities of students. There are several stages carried out by researchers and one of the teachers of MTSN 2 Malang City by applying action research method through action plans for cycle one and cycle two.

4.1 Cycle 1

In cycle 1 with action 1 by making observation which is completed by observers 1 and 2. On the observer 1, it is obtained the results of actions 1 and 2 which are:
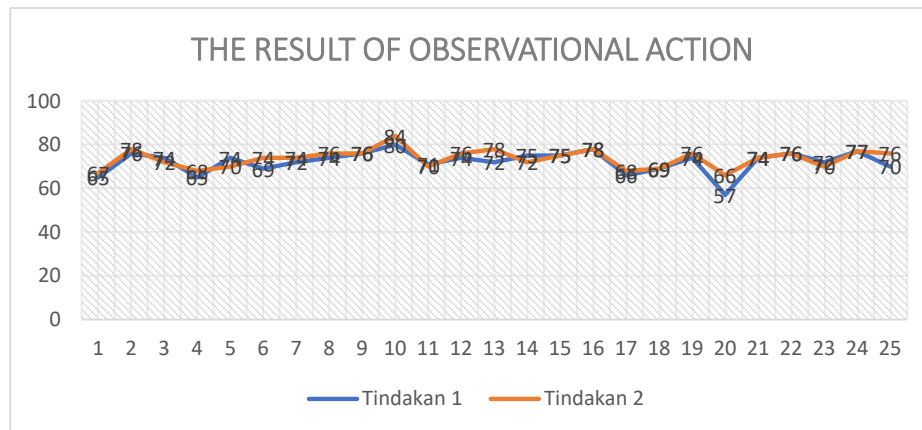

Fig. 2. Diagram of the result observational action

From the diagram above, it can be seen that the results of the action taken by observer 1 to the students of class XI in the act of understanding the concept of information literacy with 15 minutes reading process are still deficient, specifically in terms of understanding the reading material which is manifested into rewriting the reading material into writing. The results that are obtained by observer 1 in actions 1 and 2 got scores that were almost consistently distributed, but it was not complete yet or had not been able to carry put information literacy well because of many shortcomings, especially in terms of material mastery related to 15 minutes of reading. The 2nd observer also did the observation by taking the 1st and 2nd action that are:
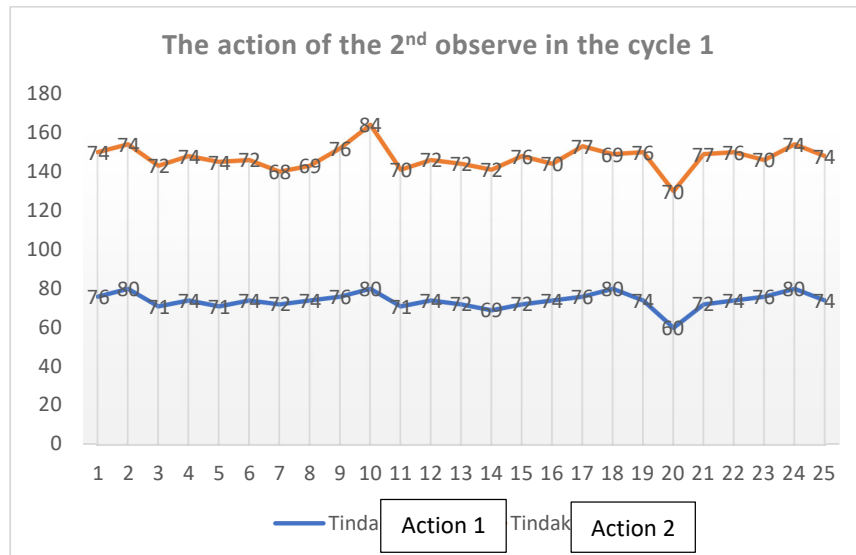
Fig. 3. Diagram of the Action of the 2nd observe in the cycle 1

In the action of 2nd observer has had been result that the average score is still same, in the action 1 the score of 25 and 6 students got the quite good result but in the action 2 there was an increasement of the good score and the criteria of mastery fulfil (KKM) that is 75 especially on the reading comprehension during 15 minutes, by creating an attractive summary such as making literacy tree.
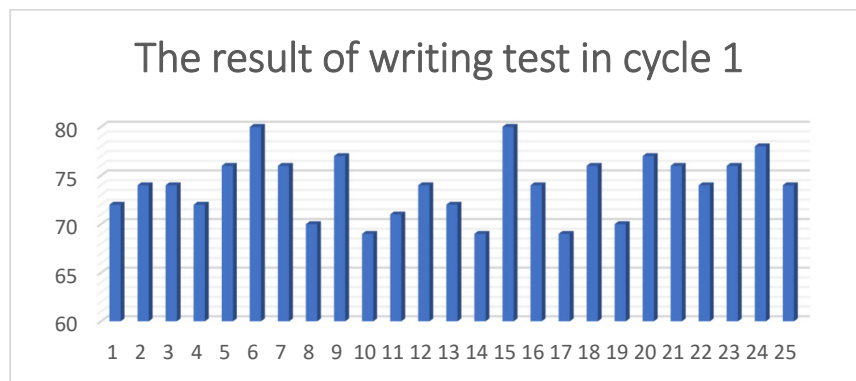

Fig. 4. Diagram of the result of writing test in cycle 1

The result of writing test which had been done during cycle 1 there are 8 students has score above the average of KKM means 75 score is finished, however there are 17 students which has not been finished in doing the questions test about information literacy.

Alluding to the observation result and writing test was showed in the form of table as follows:

Table 1. The action result and writing test has been done

Absent Number	The Action Average	Writing Test
1	66	72
2	77	74
3	73	74
4	66.5	72
5	72	76
6	71.5	80
7	73	76
8	75	70
9	76	77
10	82	69
11	70.5	71
12	75	74
13	75	72
14	73.5	69
15	75	80
16	78	74
17	67	69
18	69	76
19	75	70
20	61.5	77
21	74	76
22	76	74
23	71	76
24	77	78
25	73	74

The table above is the result from the action through the observation which had been done by the researcher, 11 students get the highest action which means the expected achievement is still in below 50% in this literary information, while 10 students get the score preferably or similarly with KKM score. The graphic chart can be seen below:
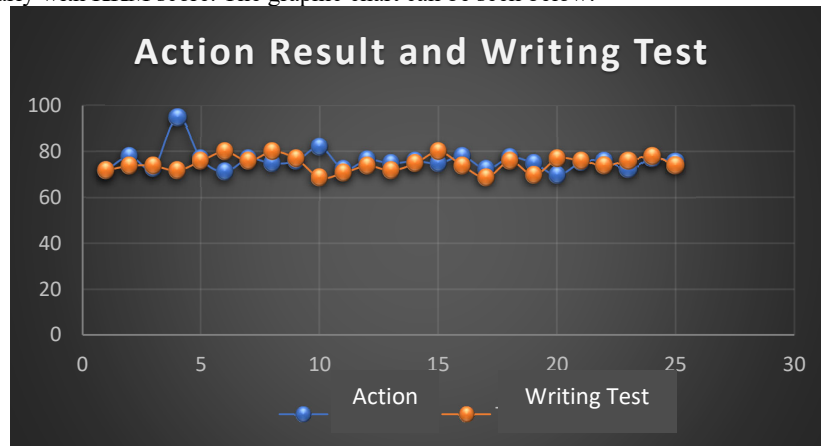

Fig. 5. Diagram of the action result and writing test

From the cycle 1 the diagram below had been found 8 students who have score in same or above the KKM that is 75, then 17 students who have the score in below the KKM. Due to many students who have score below the KKM, therefore the process of cycle 2 is needed.

4.2 Cycle 2

In cycle 1 had been found that there were still many students who have their final score in below the KKM (criteria of teaching completeness), so the researcher has been doing the action process of cycle 2 in order to get the best result from this process, which is the score in above the KKM. In the process of cycle 2, the researcher had been taking the action of the observer 1 together with the researcher 1 by doing the observation, then the result can be seen in the table below:
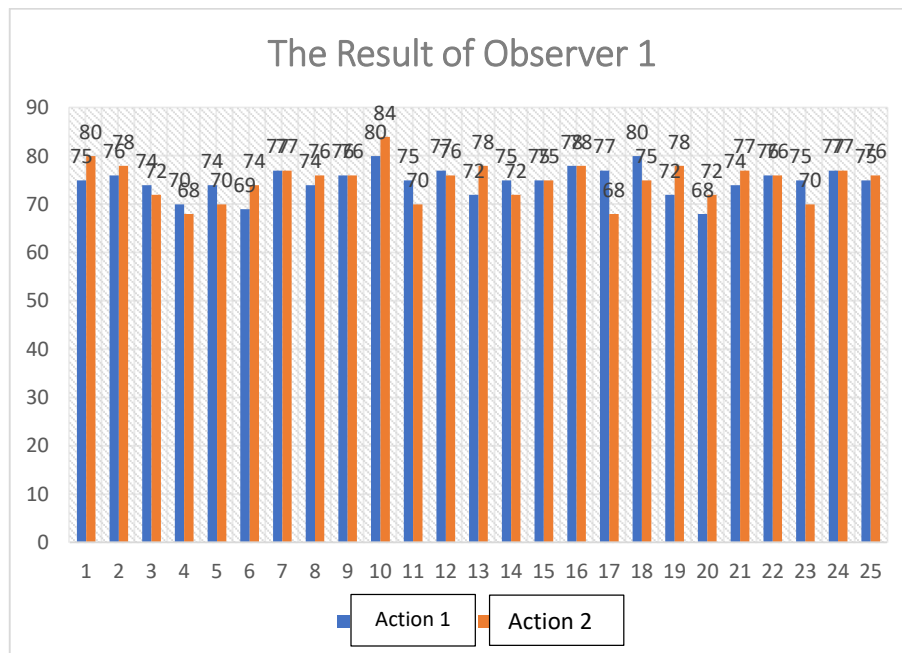

Fig. 6. Diagram of the result of observer 1

In the table above had been found 16 students in action 1 and 2 who have the score above the KKM, they have been shown that there were the response and success in the process of action literary criteria. However, from the action 1 to the action 2 there were 7 students who have the decreasing score, but they are still in the reasonable line because there was the increasing of score in action 1. In order to increase the valid data, therefore the observer 2 (the teacher's researcher) needs to have deep study with this result below:
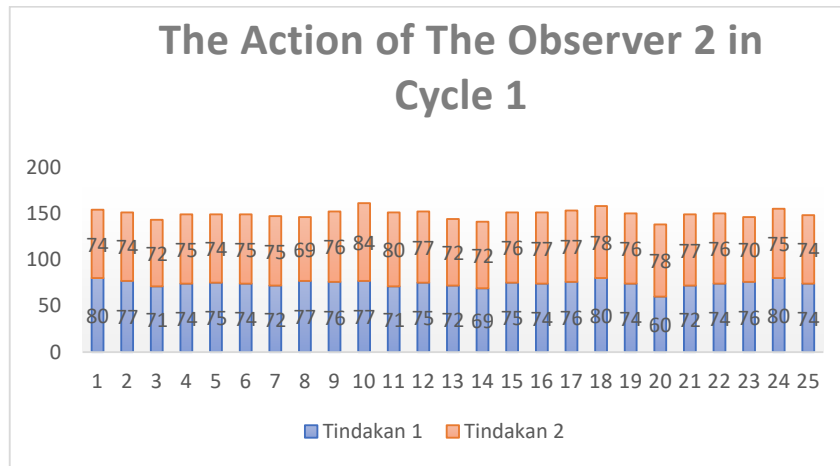
Fig. 7. Diagram of the observer 2 in cycle 1

From the table above, the action 1 has been found 13 students who has the score above the KKM and 12 students who has the score below the KKM. However, the result of action 2 has been increase by the observer 2 that is 18 students get the score above the KKM. In order to strengthen the students' ability in process of literary information, it is needed writing test in cycle 2, after the students has been given the subject matter from this activity, the result can be shown below:
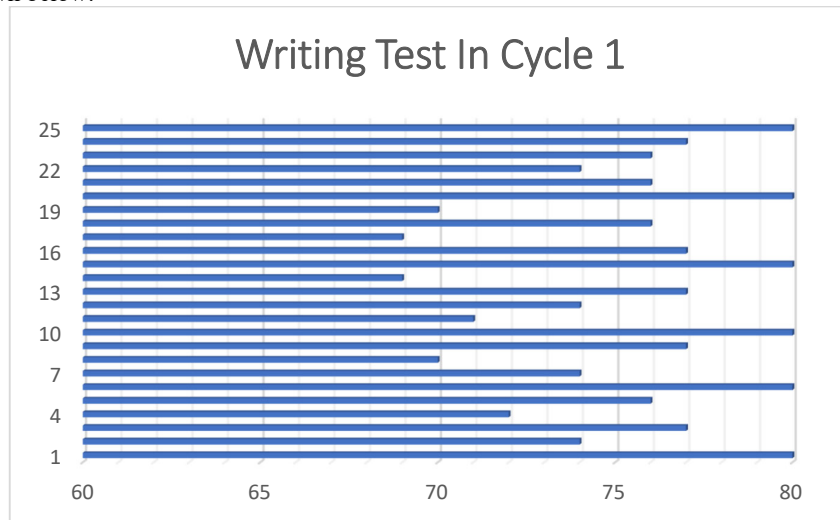

Fig. 8. Diagram of the writing test in cycle 1

By the writing test above, the students' ability in terms of literary information had been found 12 students have the score above the KKM, but there are 13 students who has the score below the KKM. This table below shows the accumulation process from the average score which the observer 1 and 2 had been done by the writing test. As follows:

Table. 2. The accumulation process from the average score

Absent Number	Average Score of Action	Writing Test
1	72	72
2	78	74
3	73	74
4	95	72
5	77	76
6	71.5	80
7	77	76
8	75	80
9	76	77
10	82	69
11	72.5	71
12	76.5	74
13	75	72
14	76	75
15	75	80
16	78	74
17	72.5	69
18	77.5	76
19	75	70
20	70	77
21	75.5	76
22	76	74
23	72.5	76
24	77	78
25	75.5	74

Thru the table above, there were 18 students had been gotten well average score (above the KKM) by the observer 1 and 2, means the score is over the KKM, then the average score of action is added by the writing test, the chart can be seen below:
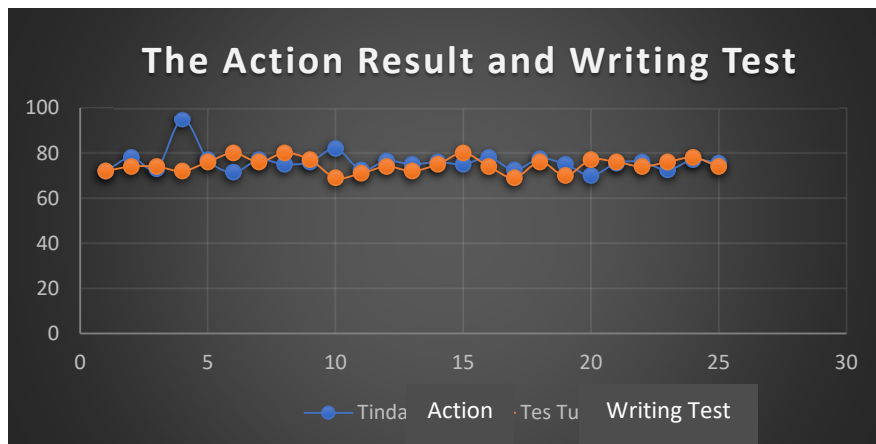

Fig. 9. Diagram of the action result and writing test

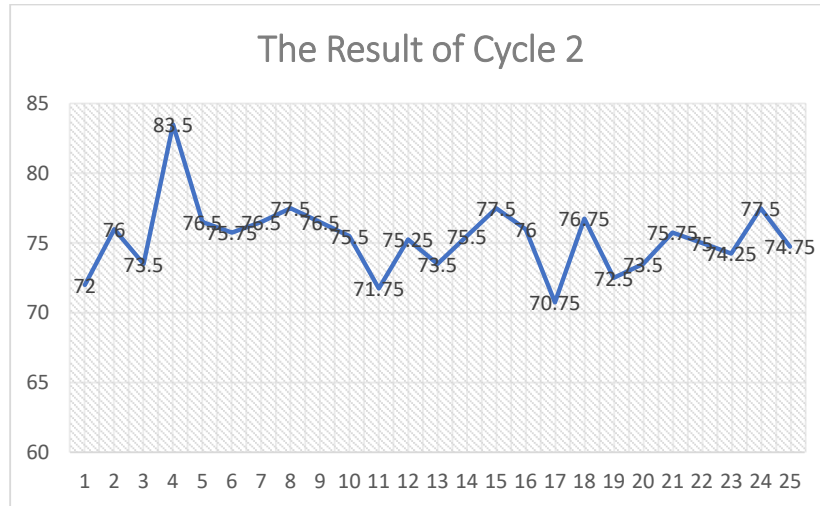Since the table and the chart above had been accumulation, the result of cycle 2 can be seen below:

Fig. 10. Diagram of the result cycle 2

From the diagram result of cycle 2 above, the analysis of literary information towards the cognitive aspect of students in MTSN 2 Kota Malang, there are 18 students obtains the cognitive and affective score as good as level 75 to up, means the score is above the KKM, because of over 50% the total of students the cycle 2 can be considered as completed.

5 Conclusion

As the effort to increase the cognitive and affective ability of students in MTSN 2 Kota Malang, the researcher takes the study class action which is started by the cycle 1 through the observation action of observer 1 and 2, there are twice explanation of subject material. After that, the researcher conducts the writing test to know how far the affective and cognitive ability of the students. The result of the study has been discovered that are many students still didn't know with the action of literary information, it is proven by 17 students who has the score below the KKM. The process of cycle 2 is can be conducted well, so in this stage over 50% of students is obtained the average score above the KKM and 18 students is gains the score above the KKM from the total of cycle 2.

Acknowledgements

References

[1] P. Wiedarti and Indonesia. Direktorat Jenderal Pendidikan Dasar dan Menengah, *Desain induk gerakan literasi sekolah*. .

[2] Sulistyo-Basuki, *Pengantar Ilmu Perpustakaan*. Jakarta: Gramedia, 2001.

[3] B. Ferguson, "Information Literacy: A Primer for Teachers, Librarians, and Other Informed People," pp. 1–14, 2005, [Online]. Available: https://bibliotech.us/pdfs/InfoLit.pdf.

[4] C. V. Anunobi and O. K. Udem, "Information Literacy Competencies: A Conceptual Analysis," *J. Appl. Inf. Sci. Technol.*, vol. 7, no. 2, 2014, doi: 10.31229/osf.io/bsza6.

[5] Lorin W Anderson, *Assessing affective characteristic in the schools*. Boston: Allyn and Bacon, 1981.

[6] Suyanto, *Pedoman Pelaksanaan Penelitian Tin dakan Kelas (PTK) Pengenalan Penelitian Tindakan Kelas*. Yogyakarta: Dirjen Dikti, 1997.

[7] Miles, *Analisis Data Kualitatif (Terjemahan Tjetjep Rohendi Rohidi)*. Jakarta: Universitas Indonesia, 1992.

[8] Stephen Kemmis, *Becoming Critical: Education, knowledge and action research*. London: Falmer, 1986.