



Examining Students' Metacognitive Awareness in Japanese Language Learning *A Survey-Based Study*

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ABSTRACT

The purpose of this research is to investigate metacognitive awareness among students enrolled in the second semester of Japanese language courses to assess their self-regulated learning performance. Metacognitive awareness plays a crucial role in students' academic success, as it enables them to monitor, evaluate, and regulate their learning processes effectively. By fostering metacognitive awareness, students can develop greater autonomy, become more strategic in their learning approaches, and enhance their overall academic performance. This study is grounded in two key theoretical frameworks: the Metacognitive Awareness Inventory (MAI) developed by Schraw and Dennison, which provides a comprehensive measure of students' metacognitive knowledge and regulation, and the metacognitive level theory proposed by Perkins and Swartz, which categorizes learners based on their ability to engage in metacognitive thinking. A survey research method was employed, utilizing the MAI questionnaire as the primary data collection instrument. The survey was administered to a total of 69 students, and the collected data were analyzed to determine the distribution of metacognitive awareness levels among participants. The results revealed that most students were classified at the strategic use level. This indicates that the majority of students possess the ability to consciously select and apply appropriate learning strategies to solve academic problems effectively. These findings suggest that while students demonstrate a solid foundation in metacognitive awareness, further instructional interventions may be beneficial in helping them advance to higher levels of metacognitive control and self-regulated learning.

KEYWORDS

Japanese language; Metacognitive Awareness; Metacognitive Awareness Inventory (MAI); Metacognitive Level.

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INTRODUCTION

In this 21st century era, students and educators are required to be able to empower the Partnership for 21st Century Skills (P21) concept. Includes 4C, communication, collaboration, critical thinking, and creativity. Of the four competencies that have been mentioned, one of them is influenced quite significantly by metacognitive awareness, namely

the critical thinking competency. Metacognition correlates with positive critical thinking, and the higher the level of metacognitive awareness, the higher the awareness of critical thinking (Sholihah & Sofiyana, 2022).

Empowering metacognitive awareness is something that must be done immediately. This is because metacognition is closely related to a person's ability to face a problem and can provide

support when solving the problem (Putera, Hidayah, Suarningtyas, & Mitasari, 2021). Metacognition is also a person's awareness of their cognitive processes and independence to achieve a goal (Kartikasari, 2022).

Not only do students need to have high metacognitive awareness, but teachers also need to have good metacognitive awareness, so that learning outcomes are optimized as much as possible. This is in accordance with the opinion of Fauzi and Sa'diyah (2019) who state that prospective teachers must have good metacognitive awareness to be able to design and implement metacognitive-based learning.

Schraw and Dennisson (1994) state that a person must have 2 main components in metacognition, namely cognitive knowledge and cognitive regulation. Cognitive knowledge is closely related to students' knowledge and awareness regarding their cognitive processes and how and when is the right time to use a strategy (Sele, 2023). Meanwhile, cognitive regulation is an activity that can help students control their learning process (Rinaldi, 2017).

The research that is relevant to this research is research written by Sholihah and Sofiyana (2021). This research shows that the metacognitive awareness of prospective teachers at Balitar Islamic University, Blitar is relatively high, which is caused by the majority of lecturers using Problem-Solving learning. This is reinforced by the results of research which found that metacognitive awareness is an awareness that is needed by beginner-level students (Philiyanti & Rismorlita, 2021). This research also found that metacognitive awareness occupies the highest need for teaching materials, followed by critical thinking and digital literacy.

LITERATURE REVIEW

Metacognitive Awareness

Flavell (1978) was the first to introduce the term metacognitive. Metacognition is a person's awareness of their cognitive processes and independence to achieve a goal (Kartikasari, 2022). This awareness is something that students must have because, in andragogics, adults have the freedom to direct themselves in the learning process (Hiryanto, 2017). Students are required to have metacognitive awareness to determine their learning strategies, and when and where they study.

Metacognitive Awareness Level

There is also an important role for the metacognitive approach to be able to carry out regulation and control over a person's cognitive mechanisms when thinking and learning so that they can occur more optimally. According to Hosseinilai and Kasaei (2013), each student has a different speed of thinking, and this results in differences in metacognitive abilities between students. Therefore, to encourage the improvement of metacognitive skills, awareness of the thinking process is needed for each student (Maulana, 2018; Habibi, Mustofa, & Ardiansyah, 2020; Zakiah, 2020). However, of course, each person will have a different level of metacognitive ability when responding to something or a problem.

Some students consciously pay attention to and solve a particular problem or problem effectively, but some only work haphazardly, and carelessly, and are not serious enough to be able to provide an answer to a problem or problem that is presented to them. This is caused by differences in the level of metacognitive awareness. The level of a person's metacognitive awareness according to Perkins and Swartz (1992) includes:

Level 1: tacit use, is the level of thinking to be able to determine a decision without going through the process of thinking about the decision made. Students only answer or try to do it.

Level 2: aware use, as a level of thinking that indicates a person's awareness of "what" and "when" to do a certain thing. Students are aware of everything they do when solving problems.

Level 3: strategic use, as a level of thinking that indicates the organization of a person's thoughts to be aware of various strategies that are specifically intended to encourage increased accuracy of thinking. As in students who are able to consciously apply an appropriate and appropriate strategy to solve a particular problem.

Level 4: reflective use, as a level of thinking that indicates the emergence of a reflective process of a person's thinking based on consideration of acquisitions and improvements. As with students who are aware of their mistakes, they can plan and make improvements to them (Sophianingtyas & Sugiarto, 2013).

The Aspects of Metacognitive Awareness

According to Schraw and Dennisson, metacognition can be divided into two aspects, namely cognitive

knowledge and cognitive regulation (Schraw and Denisson 1994).

Cognitive knowledge is a person's knowledge and awareness regarding their cognitive process, including the factors that influence the process. This is also related to knowledge of the strategy used, the reasons for choosing the strategy, and the right time to use the strategy (Sele, 2023). Meanwhile, according to Rinaldi (2017), cognitive knowledge is knowledge about awareness in self-learning. Cognitive knowledge is divided into three aspects, the first is the declarative knowledge aspect, then there is also the procedural knowledge aspect, and finally the conditional knowledge aspect. According to Schraw (1998, 2009), the indicators of cognitive knowledge are as follows:

1. Declarative knowledge
Declarative knowledge is related to any knowledge that has been embedded in a person as well as a series of factors that will influence his performance.
2. Procedural knowledge
Procedural knowledge is closely related to strategies and how various possible procedures can be used to solve a problem faced by students.
3. Conditional knowledge
Conditional knowledge is knowledge to monitor why and when is the right time to use in solving a problem.

Cognitive regulation is activities that can help students control their learning process (Rinaldi, 2017). The view states that cognitive regulation is an aspect related to the level of a person's ability to control their cognitive awareness (Sele, 2023). Cognitive regulation can support efforts to improve learning outcomes through various mechanisms and also better use of various data sources. Schraw and Denisson stated the following indicators of cognitive regulation:

1. Planning
Planning, allocating, and estimating resources along with implementation strategies are carried out from the start of declaring learning objectives. Planning consists of strategic allocation, and selecting the most appropriate resources and can include setting goals, activating background knowledge, and the timing of their achievement (Sukaisih & Muhali, 2014).
2. Information management
The ability to streamline the strategy implemented, including organizing, focusing, summarizing, or elaborating on any information needed and owned (Schraw & Denisson, 1994).

3. Monitoring

According to Flavell (1978), monitoring is quality control in learning, which can help students remember and improve their goals (Sukaisih & Muhali, 2014). Assess your use of strategies or learning. Monitoring is related to students' way of checking the extent of their understanding of learning.

4. Debugging/trace strategy

Debugging is a particular strategy to increase understanding and reduce the possibility of errors (Schraw & Denisson, 1994). Examples include asking other people for help, changing study strategies, or stopping and repeating reading when you don't understand something.

5. Evaluation

Evaluation is analyzing the effectiveness of strategies after implementing a lesson (Schraw & Denisson, 1994). Assess the product produced and the learning process and also review and revise the learning objectives.

METHODS

This research is descriptive, and the survey method was chosen to determine students' metacognitive awareness. The population in this study were second-semester students of Japanese Language Education, at a state university in Jakarta, Indonesia. Students in the second-semester class were chosen as research objects so that their metacognitive awareness can be known from the beginning of their studies it is hoped that they can provide consideration in determining the most appropriate learning strategy and can quickly increase their metacognitive awareness.

The population used in this research were students at Jakarta State University with a sample of 72 students in the second semester of the 2022/2023 class.

The instrument used in this research was the Metacognitive Awareness Inventory (MAI) questionnaire. MAI is an instrument designed by Schraw and Dennison that can be used to assess a person's level of metacognitive awareness and has been tested for validity and reliability. 52 statements in the MAI represent two classifications of metacognitive aspects, namely the cognitive knowledge aspect which consists of declarative knowledge, procedural knowledge, and conditional knowledge as well as the regulatory aspect of cognition which consists of planning, information

management, monitoring, tracking, and evaluation (Schraw & Denisson, 1994).

The data collection technique was obtained by providing MAI using an online Google form. Of the total of 72 second-semester students, 69 students (hereinafter referred to as respondents) have taken the MAI test which was given from 6 May 2023 to 22 May 2023. The results of the questionnaire data distributed were processed using a Likert scale, where the scale consists of a scale of 1 for categories Very Unsuitable (STS), scale 2 for the Not Suitable (TS) category, scale 3 for the Suitable (S) category and scale 4 for the Very Suitable (SS) category by removing neutral points.

Descriptive statistical techniques were chosen as the data analysis technique in this research. Data analysis was carried out by processing the data into percentages and categorized based on the level of metacognitive awareness into 4 levels according to what was proposed by Perkins and Swartz (1992), namely level 1 tacit use, level 2 aware use, level 3 strategic use and level 4 reflective use. Categorization is made based on the metacognitive level proposed by Perkins and Swartz (1992). The following range of categorization used in this research can be seen in Table 1.

Table 1: Categorization of Metacognitive Awareness Levels.

Value (%)	Category
0 – 24,99	Level 1
25 – 49,99	Level 2
50 – 74,99	Level 3
75 - 100	Level 4
0 – 24,99	Level 1

FINDINGS AND DISCUSSION

This research was conducted to determine the metacognitive awareness of students in the second semester of the 2022/2023 academic year in learning. Therefore, the author distributes the MAI questionnaire proposed by Schraw and Denisson as is without adding or reducing the number of questions to answer the problem formulation that was given previously.

Students Metacognitive Awareness

A person's metacognitive awareness can be determined through the results of the MAI test proposed by Schraw and Denisson in 1994. Based

on the results of the analysis of second-semester student answers, the author categorizes the level of student metacognitive awareness into 4 levels according to what was proposed by Perkins and Swartz (1992), namely level 1 tacit use, level 2 aware use, level 3 strategic use and level 4 reflective use. Of the total 72 second-semester students of Japanese Language Education, Faculty of Language and Arts, Jakarta State University, 69 students (hereinafter referred to as respondents) have taken the MAI test which was given from 6 May 2023 to 22 May 2023. Broadly speaking, metacognitive awareness is divided into two aspects, namely the cognitive knowledge aspect which consists of declarative knowledge, procedural knowledge, and conditional knowledge as well as the regulatory aspect of cognition which consists of planning, information management, monitoring, tracking, and evaluation. To determine the criteria for measuring metacognitive awareness, use interval calculation steps according to Green (Febrianti, 2020):

- 1) The maximum score can be found by = Highest score x number of statement items = $4 \times 52 = 208$
- 2) The minimum score can be found by = Lowest score x number of statement items = $1 \times 52 = 52$
- 3) Determine the range value = maximum score – minimum score = $208 - 52 = 156$
- 4) Then there are 4 interval classes in this research, namely level 4, level 3, level 2, and level 1
- 5) The length of the interval can be determined by dividing the range value by the interval class, $156: 4 = 39$

So that the intervals for each level of metacognitive awareness and the survey results of respondents are obtained as shown in Table 2.

Table 2: Frequency Distribution of Metacognitive Awareness Levels.

Level	Interval	Frequency	%
Level 4	56 – 68	15	21,74
Level 3	43 – 55	47	68,12
Level 2	30 – 42	7	10,14
Level 1	17 – 29	0	0
Total		69	100

From Table 2, it can be seen that the metacognitive awareness of students in the second semester of the 2022/2023 academic year is mostly at level 3 strategic use. This means that respondents can use different strategies that are appropriate to solve a problem.

Metacognitive Awareness: The Aspects of Cognitive Knowledge

Metacognitive awareness in the aspect of cognitive knowledge shows how a person's knowledge and awareness regarding their cognitive process, including the factors that influence the process. The data obtained is the result of respondents' answers from the MAI question instrument on aspects of cognitive knowledge, totaling 17 questions and consisting of 8 declarative knowledge questions, 4 procedural knowledge questions, and 5 conditional knowledge questions. To determine the criteria for measuring metacognitive awareness, use interval calculation steps according to Green (Febrianti, 2020).

- 1) The maximum score can be found by = Highest score x number of statement items = $4 \times 17 = 68$
- 2) The minimum score can be found by = Lowest score x number of statement items = $1 \times 17 = 17$
- 3) Determine the range value, namely = maximum score - minimum score = $68 - 17 = 54$
- 4) Then there are 4 interval classes in this research, namely level 4, level 3, level 2, and level 1
- 5) The length of the interval can be determined by dividing the range value by the interval class, $54 : 4 = 13.5$

The interval for each level of metacognitive awareness of the cognitive knowledge aspect and the survey results of respondents are shown in Table 3.

Table 3: Frequency Distribution of Levels of Metacognitive Awareness Aspects of Cognitive Knowledge.

Level	Interval	Frequency	%
Level 4	169 – 208	13	18,84
Level 3	130 – 168	53	76,81
Level 2	91 – 129	3	4,35
Level 1	52 – 90	0	0
Total		69	100

Based on Table 3, it can be seen that most of the respondents are at level 3, namely around 68%, meaning that the majority of respondents are at a level where they can use appropriate strategies in managing their cognitive knowledge. Apart from that, 15 people who were at level 4 were able to realize and correct the mistakes they made in managing their cognitive knowledge. Meanwhile, 7 people who were at level 2 were only able to realize what and when to organize their cognitive knowledge. Therefore, it can be concluded that the

level of metacognitive awareness of respondents in the cognitive knowledge aspect is on average at level 3, namely strategic use.

Declarative Knowledge

To find out how the respondent's declarative knowledge is, the author gives 8 MAI questions consisting of numbers 1 to 8. Then determining the criteria for measuring metacognitive awareness is done using interval calculation steps according to Green (Febrianti, 2020):

- 1) The maximum score can be found by = Highest score x number of statement items = $4 \times 8 = 32$
- 2) The minimum score can be found by = Lowest score x number of statement items = $1 \times 8 = 8$
- 3) Determine the range value = maximum score - minimum score = $32 - 8 = 24$
- 4) Then there are 4 interval classes in this research, namely level 4, level 3, level 2, and level 1
- 5) The length of the interval can be determined by dividing the range value by the interval class, $24 : 4 = 6$

The interval for each level of metacognitive awareness of the declarative knowledge aspect is obtained in Table 4.

Table 4: Frequency Distribution of Metacognitive Awareness Aspects of Declarative Knowledge.

Level	Interval	Frequency	%
Level 4	13 – 16	19	27,54
Level 3	12 – 10	37	53,62
Level 2	9 – 7	12	17,39
Level 1	6 – 4	1	1,45
Total		69	100

From Table 4, it can be seen that 16 people are at level 4, 48 people are at level 3, 5 people are at level 2 and not a single respondent is at level 1. Around 69.6% or more than half of the total number of respondents are at level 3, namely strategic use. This level indicates that the respondent has been able to apply appropriate strategies to increase his intellectual knowledge and things that influence his performance in solving a problem.

Procedural Knowledge

To find out how much procedural knowledge the respondents have, the author distributed the MAI questionnaire consisting of 4 questions, from question number 9 to question number 12. In determining the criteria for measuring

metacognitive awareness, the interval calculation steps according to Green (Febrianti, 2020).

- 1) The maximum score can be found by = Highest score x number of statement items = $4 \times 4 = 16$
- 2) The minimum score can be found by = Highest score x number of statement items = $1 \times 4 = 4$
- 3) Determine the range value = maximum score – minimum score = $16 - 4 = 12$
- 4) Then there are 4 interval classes in this research, namely level 4, level 3, level 2, and level 1
- 5) The length of the interval can be determined by dividing the range value by the interval class, namely $12 : 4 = 3$

The intervals for each level of metacognitive awareness of procedural knowledge aspects are obtained in Table 5.

Table 5: Frequency Distribution of Metacognitive Awareness Aspects of Procedural Knowledge.

Level	Interval	Frequency	%
Level 4	32 - 26	16	23,2
Level 3	25 - 20	48	69,6
Level 2	14 - 19	5	7,2
Level 1	8 - 13	0	0
Total		69	100

From Table 5, it can be seen that 19 people are at level 4, 37 people are at level 3, 12 people are at level 2 and 1 person is at level 1. Most respondents are at level 3, namely strategic use. At this level, it indicates that the respondent has been able to apply appropriate strategies in learning and knows how to use these strategies and the benefits that can be received when using these strategies. Apart from that, in the aspect of procedural knowledge, there is 1 respondent who is at level 1 or tacit use, which means that when he encounters a question he will write the answer without thinking about whether the answer is correct or not. So he will not think about procedures or methods that can be used to solve the problem.

Conditional Knowledge

To find out how the respondents' conditional knowledge is, the author gives MAI questions consisting of 5 questions from number 13 to number 17. Then, to determine the criteria for measuring metacognitive awareness, this is done using interval calculation steps according to Green (Febrianti, 2020).

- 1) The maximum score can be found by = Highest score x number of statement items = $4 \times 5 = 20$

- 2) The minimum score can be found by = Lowest score x number of statement items = $1 \times 5 = 5$
- 3) Determine the range value, namely = maximum score – minimum score = $20 - 5 = 15$
- 4) Then there are 4 interval classes in this research, namely level 4, level 3, level 2, and level 1
- 5) The length of the interval can be determined by dividing the range value by the interval class, $15 : 4 = 3.75$

The interval for each level of metacognitive awareness of the conditional knowledge aspect and the results of the respondent survey are obtained in Table 6.

Table 6: Frequency Distribution of Metacognitive Awareness of Conditional Knowledge Aspects.

Level	Interval	Frequency	%
Level 4	17 – 20	21	30,43
Level 3	16 – 13	42	60,87
Level 2	12 – 9	6	8,70
Level 1	5 – 8	0	0
Total		69	100

From Table 6, it can be seen that 21 people are at Level 4, 42 people are at Level 3, 6 people are at Level 2 and no one is at Level 1. Most respondents are at level 3, namely strategic use. This level indicates that the respondent has been able to consciously choose to use a skill to solve a problem. To see more clearly the recapitulation of aspects of cognitive knowledge, see Figure 1 below.

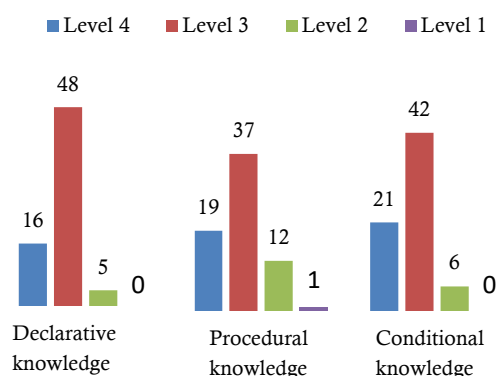


Figure 1: Recapitulation of Assessment of Cognitive Knowledge Aspects.

In the aspect of cognitive knowledge, the lowest amount is procedural knowledge with an average score of 73% and the highest position is conditional knowledge with an average score of 77%.

Metacognitive Awareness: Regulatory Aspects of Cognition

Metacognitive awareness in the aspect of cognitive regulation can show how a student controls his cognition. The data obtained is data from respondents' answers taken from the results of the MAI test on aspects of cognitive regulation, totaling 35 questions, consisting of 7 planning questions, 10 information management questions, 7 monitoring questions, 5 tracking questions, and finally 6 evaluation questions. To determine the criteria for measuring metacognitive awareness, use interval calculation steps according to Green (Febrianti, 2020).

- 1) The maximum score can be found by = Highest score x number of statement items = $4 \times 35 = 140$
- 2) The minimum score can be found by = Lowest score x number of statement items = $1 \times 35 = 35$
- 3) Determine the range value = maximum score – minimum score = $140 - 35 = 105$
- 4) Then there are 4 interval classes in this research, namely level 4, level 3, level 2, and level 1
- 5) The length of the interval can be determined by dividing the range value by the interval class, $105 : 4 = 26.25$

The intervals for each level of metacognitive awareness of aspects of cognitive regulation and the results of the respondent survey are obtained in Table 7.

Table 7: Frequency Distribution of Levels of Metacognitive Awareness Aspects of Cognitive Regulation.

Level	Interval	Frequency	%
Level 4	114 – 140	14	20,29
Level 3	87 – 113	52	75,36
Level 2	61 – 86	3	4,35
Level 1	35 – 60	0	0
Total		69	100

Based on Table 7, it can be seen that 14 respondents or around 20% have a level of awareness of cognitive regulation which is included in level 4, namely reflective use, 52 respondents or around 76% are in level 3, namely strategic use, and the remaining around 4% or 3 people respondents were at level 2, namely aware use, while there were no respondents at level 1 tacit use. Therefore, it can be concluded that the average level of student metacognitive awareness in the cognitive regulation aspect is at level 3.

Planning

To find out how planning was carried out by respondents, the author distributed the MAI questionnaire consisting of 7 questions, starting from number 18 to number 24. Then, to determine the criteria for measuring metacognitive awareness, this was done using interval calculation steps according to Green (Febrianti, 2020).

- 1) The maximum score can be found by = Highest score x number of statement items = $4 \times 7 = 28$
- 2) The minimum score can be found by = Lowest score x number of statement items = $1 \times 7 = 7$
- 3) Determine the range value, namely = maximum score – minimum score = $28 - 7 = 21$
- 4) Then there are 4 interval classes in this research, namely level 4, level 3, level 2, and level 1
- 5) The length of the interval can be determined by dividing the range value by the interval class $21 : 4 = 5.25$

The intervals for each level of metacognitive awareness of planning aspects and the results of the respondent survey are shown in Table 8.

Table 8: Frequency Distribution of Metacognitive Awareness of Planning Aspects.

Level	Interval	Frequency	%
Level 4	23 – 28	20	28,99
Level 3	17 – 22	42	60,87
Level 2	12 – 16	7	10,14
Level 1	7 – 11	0	0
Total		69	100

From Table 8, it can be seen that 20 people are at level 4, 42 people are at level 3, 7 people are at level 2 and there are no respondents at level 1. Most respondents are at level 3, namely strategic use. At this level, it indicates that the respondent has been able to consciously determine appropriate planning of learning targets, time allocation, and allocation of learning resources.

Information Management

To find out how respondents manage their information in learning, the author gave 10 MAI questions consisting of numbers 25 to 34. Then to determine the criteria for measuring metacognitive awareness, this was done using interval calculation steps according to Green (Febrianti, 2020).

- 1) The maximum score can be found by = Highest score x number of statement items = $4 \times 10 = 40$
- 2) The minimum score can be found by = Lowest score x number of statement items = $1 \times 10 = 10$

- 3) Determine the range value, namely = maximum score – minimum score = $40 - 10 = 30$
- 4) Then there are 4 interval classes in this research, namely level 4, level 3, level 2, and level 1
- 5) The length of the interval can be determined by dividing the range value by the interval class $30 : 4 = 7.5$

The interval for each level of cognitive awareness of information management aspects is obtained along with the results of the respondent survey in Table 9.

Table 9: Frequency Distribution of Metacognitive Awareness Aspects of Information Management.

Level	Interval	Frequency	%
Level 4	33 – 40	12	17,39
Level 3	25 – 32	52	75,36
Level 2	17 – 24	5	7,25
Level 1	10 – 16	0	0
Total		69	100

From Table 9, it can be seen that 12 people are at level 4, 52 people are at level 3, 5 people are at level 2 and there are no respondents at level 1. Most respondents are at level 3, namely strategic use. This level indicates that the respondent can consciously determine the most appropriate strategy sequence for solving a problem.

Information Management

To find out how monitoring was carried out by respondents, the author gave 7 MAI questions consisting of question number 35 to question number 41. Then the criteria for measuring metacognitive awareness were carried out using interval calculation steps according to Green (Febrianti, 2020).

- 1) The maximum score can be found by = Highest score x number of statement items = $4 \times 7 = 28$
- 2) The minimum score can be found by = Lowest score x number of statement items = $1 \times 7 = 7$
- 3) Determine the range value, namely = maximum score – minimum score = $28 - 7 = 21$
- 4) Then there are 4 interval classes in this research, namely level 4, level 3, level 2, and level 1
- 5) The length of the interval can be determined by dividing the range value by the interval class $21 : 4 = 5.25$

The intervals for each level of metacognitive awareness of the monitoring aspect and the results of the respondent survey are shown in Table 10.

Table 10: Frequency Distribution of Metacognitive Awareness of Monitoring Aspects.

Level	Interval	Frequency	%
Level 4	23 – 28	16	23,19
Level 3	17 – 22	49	71,01
Level 2	12 – 16	4	5,80
Level 1	7 – 11	0	0
Total		69	100

From Table 10, it can be seen that 21 people are at level 4, 42 people are at level 3, 6 people are at level 2 and there are no respondents at level 1. Most respondents are at level 3, namely strategic use. This level indicates that the respondent has been able to consciously choose to use a skill to solve a problem.

Debugging / Trace Strategy

To find out how the search occurred for respondents, the author distributed the MAI questionnaire consisting of 5 questions starting from question number 42 to question number 46. Then the criteria for measuring metacognitive awareness were carried out using interval calculation steps according to Green (Febrianti, 2020).

- 1) The maximum score can be found by = Highest score x number of statement items = $4 \times 5 = 20$
- 2) The minimum score can be found by = Lowest score x number of statement items = $1 \times 5 = 5$
- 3) Determine the range value, namely = maximum score – minimum score = $20 - 5 = 15$
- 4) Then there are 4 interval classes in this research, namely level 4, level 3, level 2, and level 1
- 5) The length of the interval can be determined by dividing the range value by the interval class $15 : 4 = 3.75$

The interval for the level of metacognitive awareness of the search aspect and the survey results of respondents are shown in Table 11.

Table 11: Frequency Distribution of Metacognitive Awareness of Search Aspects.

Level	Interval	Frequency	%
Level 4	17 – 20	20	28,99
Level 3	16 – 13	46	66,66
Level 2	12 – 9	3	4,35
Level 1	8 – 5	0	0
Total		69	100

From Table 11, it can be seen that 20 people are at level 4, 46 people are at level 3, 3 people are at level 2 and there are no respondents at level 1. Most respondents are at level 3, namely strategic use. At

this level, it indicates that the respondent has been able to determine the strategies used to improve their understanding and the mistakes made during learning.

Evaluation

To find out how the evaluation occurred among respondents, the author distributed the MAI questionnaire consisting of 6 questions starting from question number 47 to question number 52. Then the criteria for measuring metacognitive awareness were carried out using interval calculation steps according to Green (Febrianti, 2020).

- 1) The maximum score can be found by = Highest score x number of statement items = $4 \times 6 = 24$
- 2) The minimum score can be found by = Lowest score x number of statement items = $1 \times 6 = 6$
- 3) Determine the range value, namely = maximum score – minimum score = $24 - 6 = 18$
- 4) Then there are 4 interval classes in this research, namely level 4, level 3, level 2, and level 1
- 5) The length of the interval can be determined by dividing the range value by the interval class $18 : 4 = 4.5$

The intervals for each level of metacognitive awareness of the evaluation aspect and the results of the respondent survey are shown in Table 12.

Table 12: Frequency Distribution of Metacognitive Awareness of Evaluation Aspects.

Level	Interval	Frequency	%
Level 4	20 – 24	14	20,29
Level 3	15 – 19	50	72,46
Level 2	10 – 14	4	5,80
Level 1	6 – 9	1	1,45
Total		69	100

From Table 12, it can be seen that 14 people are at Level 4, 50 people are at Level 3, 4 people are at Level 2 and 1 person is at Level 1. Most respondents are at level 3, namely strategic use. At this level, it indicates that the respondent has been able to consciously assess the product produced during the learning and the process, review the learning, and improve the goals that have been made. Apart from that, in the evaluation aspect, there is 1 respondent who is at level 1 or tacit use, which means that if they encounter difficulties, they will make a decision without thinking about the influence of the decision he has made. So, they will not think about or review his own learning process, and cannot revise his learning goals.

To see more clearly the aspects of cognitive regulation, we can see Figure 2.

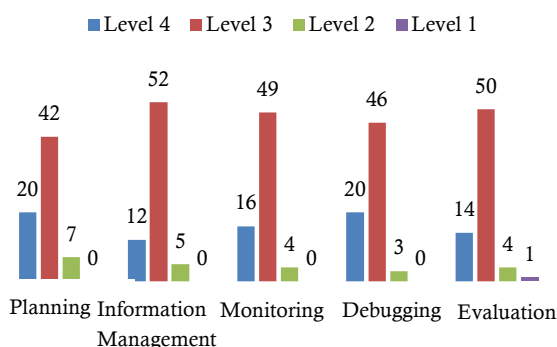


Figure 2: Recapitulation of Assessment of Regulatory Aspects of Cognition.

In the regulatory aspect of cognition, the lowest is information management with an average total score of 74%, and the highest falls on search with an average total score of 78%. Therefore, it can be concluded that the majority of metacognitive awareness of Japanese Language Education Study Program students in the second semester of the 2022/2023 class is at level 3, namely reflective use with a percentage of around 75%.

CONCLUSION

Based on the research results, it is known that the level of metacognitive awareness of students in the second semester of the Japanese Language Education Study Program is at level 3, with strategic use of around 77% which identifies that students are able to organize their thoughts and are aware of different strategies in solving a different problem. The respondents were also able to consciously apply an appropriate and appropriate strategy to solve a particular problem. The author suggests that researchers with similar discussions in the future not only examine metacognitive awareness but also compare it with the learning results that have been obtained so far and can be focused on just one subject.

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