The Analysis of Cognitive Level of Exercises on Japanese Language Textbook *Minna no Nihongo* and Its Relevance Based on User Experience

Meta Gesti Rahayu, Haryono, Heni Hernawati
*metagestiayu@gmail.com

Abstract

This study explored the cognitive level of Japanese language textbook Minna no Nihongo based on Taxonomy Bloom's theory and its relevance based on the user's experience in the real working situation in Japan. The datas of this study are collected by analyzing 182 exercises on Renshuu B to know on which cognitive level is Minna no Nihongo exercises and also collecting the data related to the user's experience by questionnaire. Participants are 81 person of LPK (Lembaga Pelatihan Kerja) students whom finished their training and are working or has been worked in Japan. The datas collected in this research are analyzed to know the cognitive level of Minna no Nihongo exercises and its relevance based on the review from the participants.

The result of the study shown that among 182 exercises, 86% are in Taxonomy Bloom's C3 level that is categorized as LOTS (Lower Order Thinking Skills). This cognitive level is no longer enough for the 21 century skills which is needed in this industry 4.0 era. Based on the questionnaire filled by partisipants from 20 LPK in Indonesia, 90.1% are learned Japanese language from Minna no Nihongo. From the user experience, Minna no Nihongo has its strength and weakness based on the participant reviews that might be the consideration for Japanese learning, especially on LPK.

keywords: Minna no nihongo, Taxonomy Bloom, Cognitive level, User experience, LPK

1. Introduction

Based on data by The Japan Foundation on 2019, Indonesia is in the 2nd place for the highest sum Japanese language learner in the world after China. Japanese learning has several aims and nowadays, the number of Japanese training school which provide the peoples who wants to be an immigrant worker in Japan is increasing. In Indonesia, those training places are called Lembaga Pelatihan Kerja (LPK). As an institution that provides Japanese language training, LPK are using learning source, such as textbook.

Some of popular Japanese texbook examples are *Minna no Nihongo, Shin Nihongo no Kiso, Genki, Marugoto, Irodori,* etc. Based on the history, *Minna no Nihongo* is the one known as popular and legendary textbook since it has been used from long time ago. *Minna no Nihongo* textbook that used nowadays is actually the result of transformation of a Japanese language textbook called *Nihongo no Kiso* that published on 1974. This 1st book was upgraded after being adjusted due to the society development besome its new version, *Shin Nihongo no Kiso* on 1990. This book, was upgraded for the second time on 1998 and published as the newest version, *Minna no Nihongo.* From this timeline, the texbook *Minna no Nihongo* used

nowadays has been through the long journey of upgrade and has been used for more than 50 years.

As we enter the Industry 4.0 era, technological advancement is accelerating rapidly (including in Japan), and society must adapt to these changes. The Industry 4.0 era demands mastery of 21st-century skills. Data from the Ministry of Education and Culture (2017) indicates that these skills comprise the "4Cs": Critical Thinking and Problem Solving, Creativity, Communication Skills, and the Ability to Work Collaboratively.

In 2017, the Japan Foundation released guidelines for the JF Standard. The JF Standard serves as a framework for designing language education environments rather than a set of binding requirements (JF, 2017). Currently, the JF Standard is widely used as a reference for delivering high-quality Japanese language instruction that meets modern demands—including the development of 21st-century learner competencies such as critical thinking and problem-solving.

However, can the *Minna no Nihongo* textbook—specifically the practice exercises used since before the Industry 4.0 era—still be considered relevant in meeting these needs? One way to assess the relevance of the *Minna no Nihongo* textbook is by evaluating the user experience.

This study focuses on the cognitive levels of the practice exercises in the *Minna no Nihongo* Japanese language textbook, analyzed according to Bloom's Taxonomy. The area of research is limited to the "Practice B" (*Renshuu* B) section of *Minna no Nihongo I*, the study analyzes the cognitive levels and relevance of these exercises based on user experience. The users in question are defined as Japanese language learners at vocational training centers (LPK) that facilitate the placement of interns or workers in Japan.

2. Method

This study is a qualitative descriptive research project that aims to describe the cognitive levels of the exercises found in the *Minna no Nihongo* textbook and relate them to the textbook's usage based on user experience. The analysis will describe the relevance of using the *Minna no Nihongo* Japanese textbook to real-world conditions, drawing upon data obtained from the user experience analysis.

The data collected—consisting of practice exercises from the *Minna no Nihongo* Japanese textbook—will be analyzed using the cognitive theories and standards of Bloom's Taxonomy to determine the specific cognitive domains addressed by these exercises.

Bloom's Taxonomy is a conceptual framework developed by Benjamin S. Bloom to classify educational objectives into systematic categories. It aims to guide educators in designing, implementing, and evaluating the learning process in a more focused and measurable manner (Suriani, 2025). Bloom's Taxonomy categorizes cognitive abilities into six levels, as follows,

Table 1. Cognitive Level in Bloom Taxonomy

Bloom Taxonomy	Bloom Taxonomy (Revised)	Thinking Level
Knowledge	Remembering	

Comprehension	Understanding	*Lower Order Thinking Skills (LOTS)*
Application	Applying	
Analysis	Analyze	*Higher Order Thinking Skills (HOTS)*
Synthesis	Evaluate	
Evaluate	Create	

In this research, researcher also collect datas derived from questionnaires completed by users of the *Minna no Nihongo* textbook who have applied the material in real-world settings—specifically, during internship programs in Japan. Both sets of data will then be analyzed to determine their relevance based on user feedback and to assess whether, from a cognitive theory perspective, the exercises in *Minna no Nihongo* are sufficient to meet the users' needs.

3. Hasil/Result

Based on the analysis result using Bloom taxonomy to determine the cognitive level, the exercises in Japanese language textbook *Minna no Nihongo* especially for *Renshuu* B is as follows,

1. Level C1, 2 questions = (2:182) x 100% = 1%
2. Level C2, 18 questions = (19:182) x 100% = 10.3%
3. Level C3, 156 questions = (156:182) x 100% = 86%
4. Level C4, 5 questions = (5:182) x 100% = 2.7%
5. Level C5, 0 question = (0:182) x 100% = 0%
6. Level C6, 0 question = (0:182) x 100% = 0%

across the various cognitive levels, it was found that the cognitive level with the highest number of questions in the Japanese language textbook *Minna no Nihongo Shokyu 1* is level C3 (applying). Questionnaire results revealed that 90.1% of respondents received Japanese language training at vocational training centers (LPK) using *Minna no Nihongo* as the primary textbook. The survey also gathered feedback regarding the strengths and weaknesses of the textbook; one cited strength was its approach of gradually progressing from simple to more complex or difficult grammatical concepts, while noted weaknesses included the use of outdated vocabulary and contexts that did not align well with everyday conversation.

4. Pembahasan/Discussion

Result category based on Bloom Taxonomy's cognitive levels

The exercises in the *Renshu B* section of the *Minna no Nihongo* textbook were categorized according to cognitive levels based on Bloom's Taxonomy, with the following analysis results,

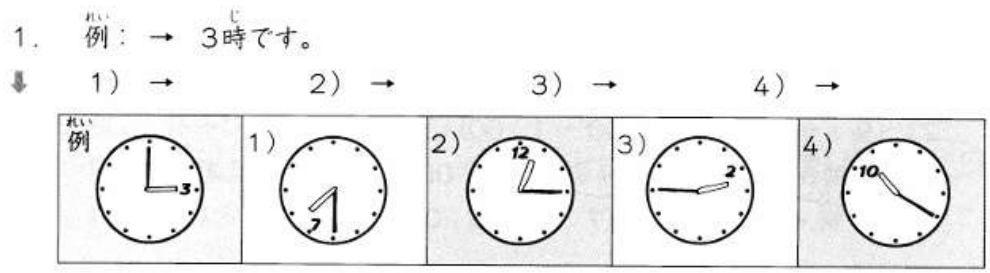
Table 2. Results of cognitive level analysis of Renshuu B practice questions

Cognitive Level	Section	Question number
C1	4	1
	6	1
C2	1	1, 2, 7
	2	1, 3
	3	1, 8
	5	1
	7	1, 2
	8	1, 8
	10	1, 2
	13	1, 6
	14	1, 2
	16	5
C3	1	3, 4, 5, 6
	2	2, 4, 5, 6, 7, 8
	3	2, 3, 4, 5, 6, 7
	4	2, 3, 4, 5, 6, 7, 8
	5	2, 3, 4, 5, 6, 7, 8
	6	2, 3, 4, 5, 6, 7
	7	3, 4, 5, 6, 7
	8	2, 3, 4, 5, 6, 7
	9	1, 2, 3, 4, 5, 6, 7, 8
	10	3, 4, 5
	11	1, 2, 3, 4, 5, 6, 7
	12	1, 2, 3, 4, 5, 6, 7
	13	2, 3, 4, 5, 7, 8
	14	3, 4, 5, 6
	15	1, 2, 3, 4, 5, 6
	16	1, 2, 3, 4, 6, 7, 8
	17	1, 2, 3, 4, 5, 6, 7, 8
	18	1, 2, 3, 4, 5, 6, 7, 8
	19	1, 2, 3, 4, 5

	20	1, 2, 3, 4, 5, 6, 7, 8
	21	1, 2, 3, 4, 5, 6, 7, 8
	22	1, 2, 3, 4, 5, 6, 7, 8
	23	1, 2, 3, 4, 5
	24	3, 4, 5, 6, 7
	25	1, 2, 4, 5, 6, 7
C4	14	7
	23	6
	24	1
	24	2
	25	3
C5	0	0
C6	0	0

In Bloom's Taxonomy, thinking skills are categorized into two levels: LOTS (Lower Order Thinking Skills) and HOTS (Higher Order Thinking Skills). LOTS refers to lower-order thinking skills, characterized by cognitive levels C1 through C3, whereas HOTS refers to higher-order thinking skills, characterized by cognitive levels C4 through C6. Based on these indicators, it is evident that LOTS-type questions account for 92.9% of the *Renshu B* exercises in the *Minna no Nihongo* Japanese textbook, while HOTS-type questions account for 7.1%. As outlined in the scope of the study, this research analyzes the cognitive levels of the *Renshu B* exercises in the *Minna no Nihongo Shokyu 1* textbook using the updated cognitive levels of Bloom's Taxonomy. The total number of *Renshu B* questions across chapters 1 through 25 is 182. Each chapter contains between 5 and 8 question items, with each item comprising an average of 4 practice questions of the same type.

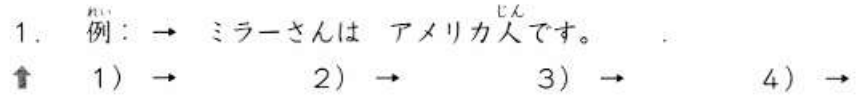
Example:



Pic 1. Practice question no. 1 from Chapter 4.

For this question, learners need to recall and state time-related vocabulary to provide an answer. Therefore, this question is in cognitive level C1.





Pic 2. Chapter 1 practice exercise, question no. 1

In this exercise, learners need to understand the function of vocabulary related to identity within sentence structures, as shown in the accompanying illustration. This exercise falls is in cognitive level C2.



Pic 3. Chapter 19, Question 1

In this exercise, learners apply vocabulary within sentences describing personal experiences. This question is in cognitive level C3.



Pic 4. Chapter 25, Question 4

To complete this task, learners need to analyze the image and construct appropriate sentences. This question is in cognitive level C4.

User Experience Questionaire Result

The researcher collected data via a questionnaire distributed to alumni of vocational training centers (LPK) who had completed their training programs and were working in Japan. Respondents' answers served as the reference data for assessing user experience in this study. The questionnaire was distributed by the researcher via social media. A total of 81 respondents from 20 different vocational training centers completed the survey. These respondents were alumni who were currently working or had previously worked in Japan across various fields, as follows,

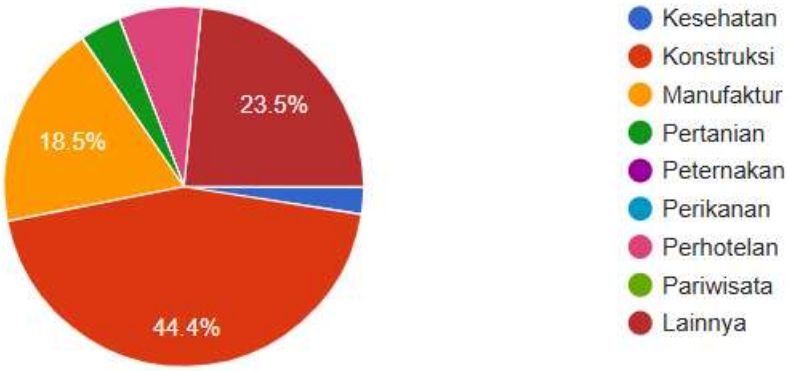


Diagram 1. Respondent's Working Field

Of the respondents, 44.4% work in construction, 18.5% in manufacturing, 7.4% in hospitality, 3.7% in agriculture, 2.5% in healthcare, and 23.5% in sectors other than those listed. On average, the respondents who completed this questionnaire have lived in Japan for periods ranging from one week to eight years.

Before working in Japan, respondents underwent preparatory training at vocational training centers (LPK) for durations ranging from two months to two years. During this training, participants also received Japanese language instruction. Data collected via the questionnaire revealed the following information regarding the primary Japanese language textbooks used as learning resources at the respondents' respective training centers.

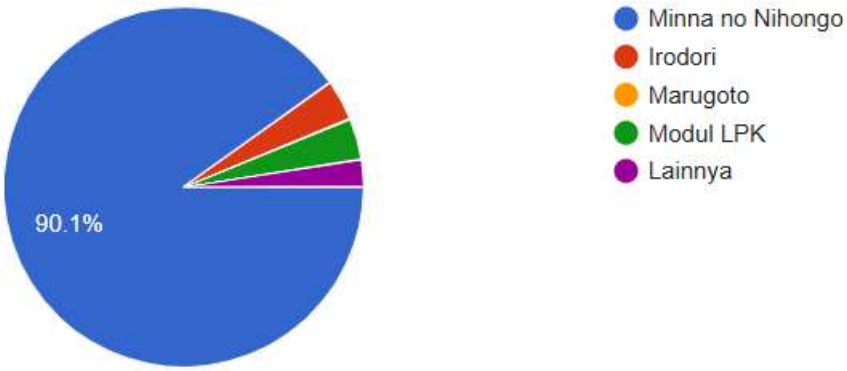


Diagram 2. Japanese textbook used during the training

90.1% respondents are studied using the *Minna no Nihongo* Japanese textbook, 3.7% used *Irodori*, 3.7% used modules compiled by their respective training centers (LPK), and 2.5% used other Japanese textbooks not previously mentioned. Questionnaire responses also revealed that 69.1% of respondents did not use any Japanese textbook other than the primary one, while 30.9% indicated that their training center utilized supplementary textbooks alongside the primary text. The supplementary textbooks used included *Irodori*, JFT Basic, IM Japan, SSW modules, *Kyoukasho Kaigo*, LPK modules, *Inochi Nihongo*, *Soumatome N3*, *Tekisuto*, *N4 Gakushudo*, and *Shinkanzen Master*. The diagram above shows that the majority of respondents used *Minna no Nihongo* as their primary Japanese textbook during the training period. The distributed questionnaire also asked for respondents' evaluations of the primary textbook used during their training at the center, covering both the strengths and weaknesses of the book. Regarding the advantages of the primary textbook, the responses are summarized as follows:

1. Easy to understand
2. Logical progression from easy to difficult material
3. Affordable price
4. Suitable for self-study
5. Practical/easy to apply in real-life situations
6. Engaging illustrations
7. Rich in information

As for the respondents' assessment of the primary textbook's shortcomings, the responses are summarized as follows,

1. Outdated language
2. Some grammatical points are difficult to grasp
3. Limited vocabulary
4. Discrepancy between textbook vocabulary and real-world usage
5. Lacks up-to-date content
6. Language is overly formal and rigid
7. Difficult for self-study
8. Unclear print quality
9. Monotonous material

Based on these assessments of strengths and weaknesses, respondents also evaluated whether the primary Japanese textbook met their needs. The summary of responses indicates that the majority felt the textbook satisfied basic daily communication needs upon their initial arrival in Japan. However, some respondents noted that the material was insufficient for communication in the workplace or for (informal) interactions with the local community.

The subsequent questionnaire item addressed the challenges respondents faced when communicating in Japanese during their early days in the country. These responses are summarized as follows,

1. Lack of confidence in conversation (*kaiwa*)
2. Predominance of informal everyday language
3. Unfamiliarity with Japanese pronunciation
4. Many unfamiliar sentence patterns and vocabulary words
5. Regional Japanese dialects
6. Frequently forgetting learned vocabulary
7. Lack of vocabulary related to specific work fields or expertise
8. Difficulty understanding spoken Japanese

5. Conclusion

An analysis of the "Practice B" (練習B) exercises in the *Minna no Nihongo* Japanese language textbook, based on Bloom's Taxonomy cognitive levels, reveals that 92.9% of the questions fall into the Lower-Order Thinking Skills (LOTS) category, while 7.1% fall into the Higher-Order Thinking Skills (HOTS) category. This indicates a relatively low proportion of HOTS questions—which are essential for developing the cognitive skills required for the 21st century.

Furthermore, data analysis and questionnaire results regarding user experience indicate that the majority of respondents consider the *Minna no Nihongo* textbook to be outdated. Consequently, it can be concluded that the *Minna no Nihongo* textbook requires updating to better align with user needs.

6. Reference

Foundation, J. (2019). *2018年度外国日本語教育機関調査結果（速報値）*. Japan Foundation.

JF. (2017). *JF Standard Bagi Pendidikan Bahasa Jepang Petunjuk Pemakaian bagi Pengguna (Edisi Terbaru).* Urawa: The Japan Foundation.

Kemdikbud, P. W. (2017, June 14). *Pendidikan Karakter Dorong Tumbuhnya Komepetensi Siswa Abad 21*. From Kementrian Pendidikan dan Kebudayaan: https://www.kemdikbud.go.id/main/blog/2017/06/pendidikan-karakter-dorong-tumbuhnya-kompetensi-siswa-abad-21

Suriani, I. (2025). Taksonomi Bloom Sebagai Landasan Desain Pembelajaran Berbasis Kompetensi dalam Pendidikan Agama Islam. *Jurnal Ilmu Manajemen dan Pendidikan*, 760-765.

JAPAN, O. (2018, July 11). *Minna no Nihongo Vs Genki: Which Japanese Language Textbooks Should I Choose?* Retrieved from OMG JAPAN: https://omgjapan.com/blogs/learn-japanese/minna-no-nihongo-vs-genki