Effectiveness of Content-Based Instruction (CBI) Model Based on Multimedia Presentations for Improving the Japanese Language Learning Outcomes of STIKES Bethesda Tomohon Students

Susanti Chornelly Aror[*], Ruty Jacoba Kapoh

Department of Japanese Language Education, Faculty of Language and Arts, Universitas Negeri Manado, Indonesia

[*]Corresponding author email: susantiaror@unima.ac.id

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Abstract

This research aims to examine students' learning outcomes using the Content-Based Instruction (CBI) model facilitated by Multimedia Presentations, and to assess the efficiency of this approach in enhancing students' proficiency in Japanese. This study's background indicates that numerous students struggle with learning Japanese due to pedagogical approaches that prioritize memory and are predominantly traditional in nature. This research employs a pre-experimental design utilizing an Intact-Group Comparison methodology. Data acquisition Observation and test administration (Pretest-Posttest). Statistical analysis: Descriptive and inferential statistics. Forty pupils from STIKES BETHESDA were sampled. This study demonstrates that the Content-Based Instruction (CBI) learning approach utilizing Multimedia Presentations enhances Japanese language proficiency among students. The result is that the Content-Based Instruction (CBI) paradigm utilizing Multimedia Presentations is demonstrably beneficial in enhancing students' Japanese language learning outcomes.

Keywords: Content-Based Instruction (CBI); Multimedia Presentations; Japanese Language Learning Outcomes

INTRODUCTION

Revision of instructional resources can also be undertaken to enhance their pertinence and contextualization. The acquisition of Japanese language proficiency is crucial for enhancing communication abilities, expanding prospects, boosting self-assurance, and advancing cognitive abilities. Developing proficiency in Japanese communication necessitates regular and diverse practice. Nur and Muhamad (2018) argue that to attain proficiency in the target language and a profound comprehension of the course material, students must engage actively in a range of learning activities using the CBI approach. A study by Mufida et al. (2013) found that content-based learning (CBI) is more successful than task-based learning (TBLT) in encouraging students to speak. In CBI, students acquire knowledge about different subjects using the language they are learning, so perceiving language to comprehend the world, rather than just as a subject. The CBI method is highly adaptable to accommodate a wide range of activities that can effectively engage students in speaking tasks. Additionally, CBI enables modifications to learning tasks for students, whether through individual, pair, or group settings, to ensure alignment with the discussed subject matter. (Mahsar, 2022).

Based on expert analysis, researchers have determined that the use of CBI facilitates the development of several language skills in learners. For instance, students can enhance their speaking abilities by engaging in discussions on the material they are studying. Students can enhance their listening skills in Japanese by engaging in activities such as attending lectures, watching films, or listening to podcasts related to the academic subject they are studying. Through reading, students can enhance their Japanese reading skills by engaging with materials that pertain to the subject matter they are studying. Writing students can enhance their Japanese writing skills by composing essays, reports, or narratives pertaining to the subject matter they are studying. Furthermore, the application of CBI in the process of learning Japanese has various benefits, specifically; Enhancing learning motivation, students will

exhibit greater motivation to acquire knowledge of Japanese if they possess a genuine interest in the course material they are studying. Enhancing linguistic understanding, pupils will have greater ease in comprehending Japanese if they acquire knowledge within a valuable and relevant framework. By engaging in Japanese language practice, students will enhance their communication abilities to effectively convey information on certain subjects. Learning Japanese with Computer-Based Instruction (CBI) is an appropriate and enjoyable approach to enhance Japanese language proficiency.

Student learning outcomes refer to the academic accomplishments attained through a range of activities, including examinations, assignments, and active participation in questioning and replying, which contribute to the attainment of learning objectives (Dakhi, 2020). Education is the systematic transformation of personal conduct that results in enhanced understanding, abilities, and attitudes as integral components of the holistic growth of an individual. Nurrita (2018). Learning outcomes pertain to observable and quantifiable changes in an individual's behavior or character resulting from their acquisition of knowledge, attitudes, and abilities during the educational process. Essentially, learning outcomes refer to the degree to which an individual has accomplished specified learning objectives.

Mufida's (2013) research on Content-Based Instruction (CBI) aims to study the effectiveness of the CBI method in improving students' speaking skills and speaking motivation. The type of research is Experimental research. Sample: 60 second semester students at the English Department of Indragiri Islamic University. Data collection Questionnaire and speaking test data analysis t-test. The CBI method did not show a significant difference in improving students' speaking skills compared to other speaking teaching methods. The CBI method has a different effect on students' speaking motivation. In conclusion, the CBI method can help improve students' speaking motivation.

This study was conducted on students who were studying Japanese. The difference from previous studies is that it used English. This study was conducted on students of STIKES BETHESDA in Tomohon City, North Sulawesi Province, with research subjects consisting of 40 students. With the Content-Based Instruction (CBI) method, it is expected that students will be more active in learning Japanese and improving their Japanese language skills. During learning using the Content-Based Instruction (CBI) method, researchers guide learners in making presentations. Presentations are in the form of improving speaking, listening, reading and writing.

METHOD

This study uses a pre-experimental method with an Intact group comparison design. The goal is to understand and describe in depth and comprehensively how the use of the Multimedia Presentations-based CBI method in Japanese language learning. Data collection directly from the source (informant) Qualitative Technique (test and observation). Descriptive data analysis, the population of all Semester 4 (Level II) students totaling 96 students. Representative samples from the population of two classes of BETHESDA STIKES students in Tomohon City (20 students each) Total sample of 40 students, one class as a control group and one as an experimental group.

RESULTS AND DISCUSSION

This study compares the Japanese language learning outcomes between the experimental group using the Content-Based Instruction (CBI) Model based on Multimedia Presentations and the control group that did not receive treatment. The CBI learning model based on Multimedia Presentations was applied in 7 meetings with the steps described in table 1.

Table 1. Steps of the meeting

Preparation Phase	Implementation Phase	Evaluation Phase
1. Explain the learning objectives to be achieved.	1. Explain the learning objectives to be achieved.	1. Giving quizzes or other evaluations to measure individual understanding.
2. Prepare learning materials in multimedia format (eg: video, images, audio).	2. Prepare and implement learning in multimedia format in the form of videos, images and audio.	2. Conducting individual and group evaluations to determine student learning progress.
3. Prepare student activity sheets related to multimedia materials.	3. Implement student activities based on the available sheets related to multimedia materials.	3. Providing feedback and rewards for student learning achievements.
4. Prepare short quizzes to measure students' initial understanding.	4. Prepare short quizzes to measure student understanding.	

Activities implementating the Content-Based Instruction (CBI) Model using Multimedia Presentations include:

Initial Meeting: Overview and Orientation

1. Elucidation of the CBI learning paradigm supported by multimedia presentations.

2. PowerPoint multimedia presentation exploring hobbies and preferences within the context of Japanese culture.

3. Students conduct interviews with their peers to ascertain their interests and preferences in the Japanese language.

4. Each student delivers a separate presentation to elucidate the discoveries derived from the interview

5. Overview of educational resources for the upcoming session

Workshop 2: Acquiring essential Japanese vocabulary for everyday use

1. Vocabulary card presentation

2. Japanese speaking exercise focusing on everyday activities utilising fundamental vocabulary and sentence structures.

3. Lexical matching games in the Japanese language utilizing vocabulary cards.

Four Basic Japanese Dialogues

Workshop 3: Exploring Japanese directions

1. Video-based presentation showcasing the geographical positions of tourism destinations in Japan, as well as the corresponding cars and directions.

2. Rehearse the strategy for reaching the intended destination. Participants provide information about the location and method of transportation, including instructions and suggested vehicles, in Japanese.

3. Basic interaction in the Japanese language

Workshop 4: Japanese Correspondence 1. Viewing animated Japanese conversations 2. Composing discourse using phrase patterns 3. Engage in the practice of composing letters that include self-introductions, daily routines, personal interests, and reciprocal responses to letters exchanged with classmates.

Workshop 5: Inquiry and Exchange of Objects

1. Japanese presentation on object-asking and object-giving techniques 2. Active practice of object-asking and object-giving in front of the class

3. Japanese language activities designed to enhance the mastery and application of common noun vocabulary.

4. Basic conversations in Japanese around the act of requesting and providing items

Workshop 6: Shopping 1. Power Point presentation: Strategies for shopping in Japan

2. Modeling the scenario of shopping in a Japanese retail establishment

3. Japanese language activities aimed at enhancing the ability to identify and use shopping terminology and negotiate effectively.

4. Basic conversations in Japanese regarding shopping

Workshop 7: Concluding Presentation

1. Participants select a presentation subject within the scope of the learned content.

2. Attendees deliver a presentation. A duration of 5 minutes is allocated to each participant.

3. Evaluation of presentations

Through the implementation of the aforementioned activities, students have experienced the advantages of collaborating with their peers, so fostering their engagement in the educative process. Hence, when a teacher implements the Content-Based Instruction (CBI) learning approach centered on Multimedia Presentations, they need to possess great expertise in the subject matter and consistently support the students throughout the learning process.

Advantages of the Content-Based Instruction (CBI) learning methodology based on Multimedia Presentations include: 1) Enhancing educational attainment. Students engage in active learning by assisting one another in comprehending the topic materials. Collaboration of this nature frequently results in enhanced comprehension and more extensive and optimal learning achievements. 2) Enhancing linguistic proficiency. Curriculum-Based Instruction (CBI) provides students with exposure to language in authentic contexts, therefore facilitating their comprehension of language usage in practical scenarios. 3) Enhancing social competencies. This paradigm facilitates

constructive social interactions, including proficient communication and attentive listening; 4) Enhancing learning motivation through active task completion has the potential to boost intrinsic motivation for learning among students. 5) Enhancing faculties of critical thinking. CBI promotes the development of analytical and evaluative skills in students, as well as the cultivation of critical thinking approaches towards their learning. Lower-achieving students derive advantages from receiving explanations and support from their peers, whilst higher-achieving students profit from opportunities to impart knowledge and strengthen their comprehension. The findings of the data analysis are displayed in Table 2.

Table 2. Data of Post-Test Experiment

Post-Test Experiment	Mean		8255
	95% Confidence Interval for Mean	Lower Bound	7926
		Upper Bound	8584
	5% Trimmed Mean		8256
	Median		8450
	Variance		49.313
	Std Deviation		7.022
	Minimum		70
	Maximum		95
	Range		25
	Interquartile Range		14
	Skewness		-100
	Kutosis		-1.185

The statistics indicates that the experimental group receiving instruction utilizing the Content-Based Instruction (CBI) Model achieved an average Japanese language acquisition score of 82.55, with a standard deviation of 7,022 and a variance of 49,313. The top-scoring pupils attained a score of 95 out of 100, while the lowest-scoring student achieved a score of 70 out of 0. Figure 1 displays the test results of student learning scores that indicate the significance of the Japanese language learning achievements of the experimental group instructed utilizing the Content-Based Instruction (CBI) Model.

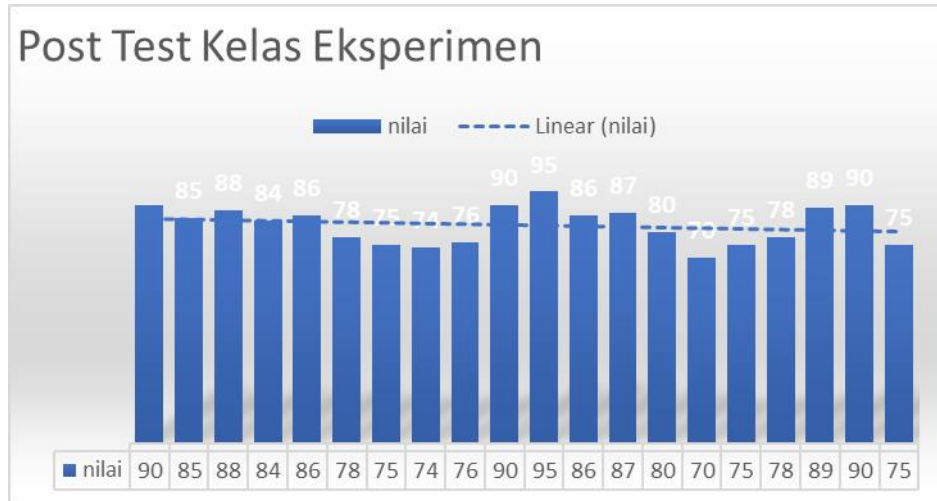Aror, S. C., & Kapoh, R. J. (2024). CBI for improving Japanese language

Figure 1. Values of Post Test Experiment

Among the control group who did not receive instruction in the Content-Based Instruction (CBI) model, the Japanese language learning outcomes were as follows: an average score of 69.30, a standard deviation of 44.958, a variance of 44.958, a maximum score of 83 out of 100, and a minimum score of 60 out of 0. Table 2 and histogram graph 2 display the frequency distribution of Japanese language training results in the control group who did not receive instruction using the Content-Based Instruction (CBI) Model.

Table 3. Data of Post-Test Kontrol (Conventional)

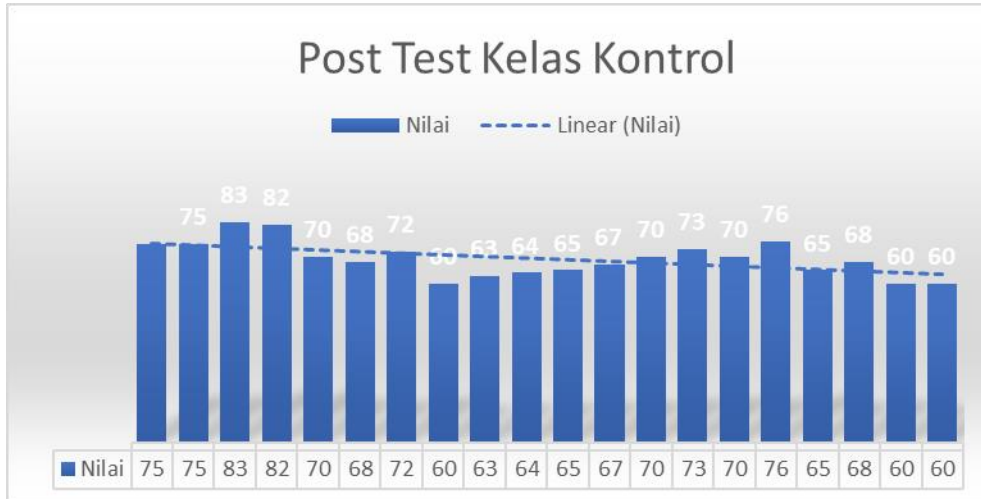| Post-Test Kontrol (Konvensional)	Mean		69.30
	95% Confidence Interval for Mean	Lower Bound	66.16
		Upper Bound	72.44
	5% Trimmed Mean		69.06
	Median		69.00
	Variance		44.958
	Std Deviation		6.705
	Minimum		60
	Maximum		83

Figure 2. Outcomes of Values from Post-Test Control Class

The research indicates that the experimental group, which received instruction using the Content-Based Instruction (CBI) Learning Model, achieved superior results in learning the Japanese language compared to the control group, which did not receive instruction using the CBI model. Prior to doing a hypothesis test, it is necessary to assess the normality and homogeneity of variance of the Japanese language learning result data. An assessment of normality was performed to verify the normal distribution of the data in both research samples. An analysis of the normalcy test findings is shown in Table 4.

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Table 4. Test of Normality Outcomes

	Kelas	Kolmogorov-Smirnov			Shapiro-Wilk		
		Statistic	df	Sig.	Statistic	Df	Sig.
Japanese Language Learning Outcomes	Post Test Experiment (CBI)	.141	20	.200	.939	20	.227
	Post-Test Control (Conventional)	.108	20	.200	.952	20	.398

The findings of the post-test indicated a normal distribution, with a p-value of 0.227 for the experimental group and 0.398 for the control group, calculated using the conventional significance level of 0.05. The Shapiro-Wil normality test yielded a p-value for both groups that above 0.05. Moreover, a normality test was performed to assess the homogeneity of variance. An analysis of the Japanese language learning outcome data was conducted using the Levene statistical test. The criterion is that both groups exhibit equal variance if the significance value is less than the coefficient of variation. The results of this test are displayed in table 5.

Table 5. Test of Homogeneity of Variance

		Levene statistics	df1	df2	Sig.
Japanese language learning outcomes	Based on Mean	.659	1	38	.422
	Based on Median	.372	1	38	.546
	Based on Median and with Adjusted df	.372	1	37.980	.546
	Based on Trimmed Mean	.656	1	38	.423

The numerical findings indicate that the Levene Statistic Sig value is 0.422, which is lower than the a-value, which is determined using the conventional threshold of 0.05. Hence, it can be inferred that the statistic 0.422 above the significance level of 0.05, so suggesting the acceptance of H0 or the rejection of Ha. These findings suggest that the data on Japanese language acquisition in both the experimental group and the control group are same or homogeneous. The results of the preceding tests for normality and homogeneity of variance indicate that the data follows a normal distribution and exhibit homogeneity. The independent t-test was employed to assess the statistical formula for variance. The corresponding findings are presented in Table 6.

Table 6. Independent samples test

| | Levene's Test for Equality of Variances | | T-Test for Equality of Means | | | | | | | |
| | | | | | Significance | | Mean difference | Std. Error difference | 95% Confidence Interval of the Difference | |
	F	Sig	t	df	One-sided p	Two-sided p			Lower	Upper
Equal variances assumed	11.997	.001	-3.220	35	.001	.003	-10.24118	3.18038	-16.69769	-3.78456
Equal variances not assumed			-3.078	23.889	.003	.005	-10.24118	3.32679	-17.10903	-3.37332

The statistical analysis of the data reveals that the p-value of 0.003 is less than the significance level of 0.05. Therefore, it can be inferred that there is a statistically significant difference between the average Japanese language learning outcomes of students in the experimental group and the control group. This demonstrates the impact of the content-based learning model (CBI) on the attainment of Japanese language learning results among students.

CONCLUSION

Considering the acquired research findings, it can be inferred that CBI-based learning has demonstrated highly encouraging outcomes in the realm of Japanese language acquisition. Numerous overarching conclusions derived from diverse research suggest that: (1) Enhancing Language Proficiency, CBI has demonstrated efficacy in providing overall improvement in Japanese language proficiency, encompassing hearing, speaking, reading, and writing abilities. Students that participate in CBI learning demonstrate higher levels of proficiency in applied Japanese language skills in real-life situations. (2) Enhanced Learning Motivation, Cloud-Based Instruction (CBI) can establish a more engaging and pertinent learning atmosphere for pupils. Through the

integration of learning materials with students' interests and experiences, CBI has the potential to enhance learning motivation and foster greater student engagement in the learning process. (3) Enhancing Self-Confidence, CBI offers students the chance to apply Japanese language skills in authentic scenarios. This might enhance pupils' self-assurance in communication utilizing the Japanese language. (4) CBI provides a significant degree of flexibility in its execution. In accordance with students' interests and needs, as well as the prevailing learning environment, teachers can adapt learning materials and activities.

Without the use of the Content-Based Instruction (CBI) learning approach, students achieve good or moderate Japanese language acquisition results, with an average score of 69.30. The implementation of the Content-Based Instruction (CBI) learning approach at STIKES BETHESDA has resulted in highly satisfactory Japanese language learning outcomes for students, with an average score of 82.55. The successful implementation of the Content-Based Instruction (CBI) methodology in enhancing the Japanese language learning achievements of STIKES BETHESDA students has been demonstrated.

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